```
-------------------------------------------------------------------------------
-------------------------------------------------------------
      name:  <unnamed>
       log:  C:\Users\ids29\Documents\Stata\Taxes-Subsidies_Granular_Results.log
  log type:  text
 opened on:  19 Nov 2012, 14:15:18

.
.
.
. foreach var of varlist PEX001- BW026 {
  2.
. display "-------------------------- `var' --------------------"
  3.
. signtest a_`var' = b_`var'
  4.
. }
--------------------------- PEX001 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX001 - b_PEX001 = 0 vs.
  Ha: median of a_PEX001 - b_PEX001 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PEX001 - b_PEX001 = 0 vs.
  Ha: median of a_PEX001 - b_PEX001 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX001 - b_PEX001 = 0 vs.
  Ha: median of a_PEX001 - b_PEX001 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX002 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX002 - b_PEX002 = 0 vs.
  Ha: median of a_PEX002 - b_PEX002 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX002 - b_PEX002 = 0 vs.
  Ha: median of a_PEX002 - b_PEX002 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000
```

```
Two-sided test:
  Ho: median of a_PEX002 - b_PEX002 = 0 vs.
  Ha: median of a_PEX002 - b_PEX002 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX003 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX003 - b_PEX003 = 0 vs.
  Ha: median of a_PEX003 - b_PEX003 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX003 - b_PEX003 = 0 vs.
  Ha: median of a_PEX003 - b_PEX003 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX003 - b_PEX003 = 0 vs.
  Ha: median of a_PEX003 - b_PEX003 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX004 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX004 - b_PEX004 = 0 vs.
  Ha: median of a_PEX004 - b_PEX004 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PEX004 - b_PEX004 = 0 vs.
  Ha: median of a_PEX004 - b_PEX004 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX004 - b_PEX004 = 0 vs.
  Ha: median of a_PEX004 - b_PEX004 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX005 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
```

```
    negative |           1           .5
        zero |           0            0
-------------+-----------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PEX005 - b_PEX005 = 0 vs.
  Ha: median of a_PEX005 - b_PEX005 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX005 - b_PEX005 = 0 vs.
  Ha: median of a_PEX005 - b_PEX005 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX005 - b_PEX005 = 0 vs.
  Ha: median of a_PEX005 - b_PEX005 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX006 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           0           .5
    negative |           1           .5
        zero |           0            0
-------------+-----------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PEX006 - b_PEX006 = 0 vs.
  Ha: median of a_PEX006 - b_PEX006 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX006 - b_PEX006 = 0 vs.
  Ha: median of a_PEX006 - b_PEX006 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX006 - b_PEX006 = 0 vs.
  Ha: median of a_PEX006 - b_PEX006 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX007 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           0           .5
    negative |           1           .5
        zero |           0            0
-------------+-----------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PEX007 - b_PEX007 = 0 vs.
  Ha: median of a_PEX007 - b_PEX007 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX007 - b_PEX007 = 0 vs.
```

```
  Ha: median of a_PEX007 - b_PEX007 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX007 - b_PEX007 = 0 vs.
  Ha: median of a_PEX007 - b_PEX007 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX008 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX008 - b_PEX008 = 0 vs.
  Ha: median of a_PEX008 - b_PEX008 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX008 - b_PEX008 = 0 vs.
  Ha: median of a_PEX008 - b_PEX008 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX008 - b_PEX008 = 0 vs.
  Ha: median of a_PEX008 - b_PEX008 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX009 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX009 - b_PEX009 = 0 vs.
  Ha: median of a_PEX009 - b_PEX009 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX009 - b_PEX009 = 0 vs.
  Ha: median of a_PEX009 - b_PEX009 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX009 - b_PEX009 = 0 vs.
  Ha: median of a_PEX009 - b_PEX009 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX010 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX010 - b_PEX010 = 0 vs.
  Ha: median of a_PEX010 - b_PEX010 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PEX010 - b_PEX010 = 0 vs.
  Ha: median of a_PEX010 - b_PEX010 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX010 - b_PEX010 = 0 vs.
  Ha: median of a_PEX010 - b_PEX010 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX011 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX011 - b_PEX011 = 0 vs.
  Ha: median of a_PEX011 - b_PEX011 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PEX011 - b_PEX011 = 0 vs.
  Ha: median of a_PEX011 - b_PEX011 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX011 - b_PEX011 = 0 vs.
  Ha: median of a_PEX011 - b_PEX011 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX012 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX012 - b_PEX012 = 0 vs.
  Ha: median of a_PEX012 - b_PEX012 > 0
```

```
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX012 - b_PEX012 = 0 vs.
  Ha: median of a_PEX012 - b_PEX012 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX012 - b_PEX012 = 0 vs.
  Ha: median of a_PEX012 - b_PEX012 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX013 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX013 - b_PEX013 = 0 vs.
  Ha: median of a_PEX013 - b_PEX013 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX013 - b_PEX013 = 0 vs.
  Ha: median of a_PEX013 - b_PEX013 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX013 - b_PEX013 = 0 vs.
  Ha: median of a_PEX013 - b_PEX013 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX014 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX014 - b_PEX014 = 0 vs.
  Ha: median of a_PEX014 - b_PEX014 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX014 - b_PEX014 = 0 vs.
  Ha: median of a_PEX014 - b_PEX014 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX014 - b_PEX014 = 0 vs.
  Ha: median of a_PEX014 - b_PEX014 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PEX015 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX015 - b_PEX015 = 0 vs.
  Ha: median of a_PEX015 - b_PEX015 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX015 - b_PEX015 = 0 vs.
  Ha: median of a_PEX015 - b_PEX015 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX015 - b_PEX015 = 0 vs.
  Ha: median of a_PEX015 - b_PEX015 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PEX016 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX016 - b_PEX016 = 0 vs.
  Ha: median of a_PEX016 - b_PEX016 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PEX016 - b_PEX016 = 0 vs.
  Ha: median of a_PEX016 - b_PEX016 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX016 - b_PEX016 = 0 vs.
  Ha: median of a_PEX016 - b_PEX016 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PEX017 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1
```

```
One-sided tests:
  Ho: median of a_PEX017 - b_PEX017 = 0 vs.
  Ha: median of a_PEX017 - b_PEX017 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX017 - b_PEX017 = 0 vs.
  Ha: median of a_PEX017 - b_PEX017 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX017 - b_PEX017 = 0 vs.
  Ha: median of a_PEX017 - b_PEX017 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX018 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX018 - b_PEX018 = 0 vs.
  Ha: median of a_PEX018 - b_PEX018 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX018 - b_PEX018 = 0 vs.
  Ha: median of a_PEX018 - b_PEX018 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PEX018 - b_PEX018 = 0 vs.
  Ha: median of a_PEX018 - b_PEX018 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX019 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PEX019 - b_PEX019 = 0 vs.
  Ha: median of a_PEX019 - b_PEX019 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX019 - b_PEX019 = 0 vs.
  Ha: median of a_PEX019 - b_PEX019 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000
```

```
Two-sided test:
  Ho: median of a_PEX019 - b_PEX019 = 0 vs.
  Ha: median of a_PEX019 - b_PEX019 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX020 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX020 - b_PEX020 = 0 vs.
  Ha: median of a_PEX020 - b_PEX020 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEX020 - b_PEX020 = 0 vs.
  Ha: median of a_PEX020 - b_PEX020 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX020 - b_PEX020 = 0 vs.
  Ha: median of a_PEX020 - b_PEX020 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEX021 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX021 - b_PEX021 = 0 vs.
  Ha: median of a_PEX021 - b_PEX021 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEX021 - b_PEX021 = 0 vs.
  Ha: median of a_PEX021 - b_PEX021 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX021 - b_PEX021 = 0 vs.
  Ha: median of a_PEX021 - b_PEX021 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEX022 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
```

```
    negative |           0           1
        zero |           0           0
-------------+-----------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEXO22 - b_PEXO22 = 0 vs.
  Ha: median of a_PEXO22 - b_PEXO22 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEXO22 - b_PEXO22 = 0 vs.
  Ha: median of a_PEXO22 - b_PEXO22 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEXO22 - b_PEXO22 = 0 vs.
  Ha: median of a_PEXO22 - b_PEXO22 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEXO23 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+-----------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEXO23 - b_PEXO23 = 0 vs.
  Ha: median of a_PEXO23 - b_PEXO23 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEXO23 - b_PEXO23 = 0 vs.
  Ha: median of a_PEXO23 - b_PEXO23 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEXO23 - b_PEXO23 = 0 vs.
  Ha: median of a_PEXO23 - b_PEXO23 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEXO24 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+-----------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEXO24 - b_PEXO24 = 0 vs.
  Ha: median of a_PEXO24 - b_PEXO24 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEXO24 - b_PEXO24 = 0 vs.
```

```
  Ha: median of a_PEX024 - b_PEX024 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEX024 - b_PEX024 = 0 vs.
  Ha: median of a_PEX024 - b_PEX024 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEX025 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX025 - b_PEX025 = 0 vs.
  Ha: median of a_PEX025 - b_PEX025 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX025 - b_PEX025 = 0 vs.
  Ha: median of a_PEX025 - b_PEX025 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEX025 - b_PEX025 = 0 vs.
  Ha: median of a_PEX025 - b_PEX025 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEX026 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX026 - b_PEX026 = 0 vs.
  Ha: median of a_PEX026 - b_PEX026 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX026 - b_PEX026 = 0 vs.
  Ha: median of a_PEX026 - b_PEX026 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEX026 - b_PEX026 = 0 vs.
  Ha: median of a_PEX026 - b_PEX026 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEX027 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX027 - b_PEX027 = 0 vs.
  Ha: median of a_PEX027 - b_PEX027 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX027 - b_PEX027 = 0 vs.
  Ha: median of a_PEX027 - b_PEX027 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEX027 - b_PEX027 = 0 vs.
  Ha: median of a_PEX027 - b_PEX027 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PEX028 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX028 - b_PEX028 = 0 vs.
  Ha: median of a_PEX028 - b_PEX028 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PEX028 - b_PEX028 = 0 vs.
  Ha: median of a_PEX028 - b_PEX028 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PEX028 - b_PEX028 = 0 vs.
  Ha: median of a_PEX028 - b_PEX028 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PEX029 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX029 - b_PEX029 = 0 vs.
  Ha: median of a_PEX029 - b_PEX029 > 0
```

```
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX029 - b_PEX029 = 0 vs.
  Ha: median of a_PEX029 - b_PEX029 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEX029 - b_PEX029 = 0 vs.
  Ha: median of a_PEX029 - b_PEX029 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PEX030 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX030 - b_PEX030 = 0 vs.
  Ha: median of a_PEX030 - b_PEX030 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PEX030 - b_PEX030 = 0 vs.
  Ha: median of a_PEX030 - b_PEX030 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PEX030 - b_PEX030 = 0 vs.
  Ha: median of a_PEX030 - b_PEX030 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PEX031 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX031 - b_PEX031 = 0 vs.
  Ha: median of a_PEX031 - b_PEX031 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEX031 - b_PEX031 = 0 vs.
  Ha: median of a_PEX031 - b_PEX031 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX031 - b_PEX031 = 0 vs.
  Ha: median of a_PEX031 - b_PEX031 != 0
      Pr(#positive >= 2 or #negative >= 2) =
```

```
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PEX032 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX032 - b_PEX032 = 0 vs.
  Ha: median of a_PEX032 - b_PEX032 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEX032 - b_PEX032 = 0 vs.
  Ha: median of a_PEX032 - b_PEX032 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX032 - b_PEX032 = 0 vs.
  Ha: median of a_PEX032 - b_PEX032 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PEX033 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PEX033 - b_PEX033 = 0 vs.
  Ha: median of a_PEX033 - b_PEX033 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEX033 - b_PEX033 = 0 vs.
  Ha: median of a_PEX033 - b_PEX033 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX033 - b_PEX033 = 0 vs.
  Ha: median of a_PEX033 - b_PEX033 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PEX034 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2
```

```
One-sided tests:
  Ho: median of a_PEX034 - b_PEX034 = 0 vs.
  Ha: median of a_PEX034 - b_PEX034 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PEX034 - b_PEX034 = 0 vs.
  Ha: median of a_PEX034 - b_PEX034 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PEX034 - b_PEX034 = 0 vs.
  Ha: median of a_PEX034 - b_PEX034 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PIN001 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN001 - b_PIN001 = 0 vs.
  Ha: median of a_PIN001 - b_PIN001 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PIN001 - b_PIN001 = 0 vs.
  Ha: median of a_PIN001 - b_PIN001 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PIN001 - b_PIN001 = 0 vs.
  Ha: median of a_PIN001 - b_PIN001 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN002 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN002 - b_PIN002 = 0 vs.
  Ha: median of a_PIN002 - b_PIN002 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN002 - b_PIN002 = 0 vs.
  Ha: median of a_PIN002 - b_PIN002 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000
```

```
Two-sided test:
  Ho: median of a_PIN002 - b_PIN002 = 0 vs.
  Ha: median of a_PIN002 - b_PIN002 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN003 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN003 - b_PIN003 = 0 vs.
  Ha: median of a_PIN003 - b_PIN003 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN003 - b_PIN003 = 0 vs.
  Ha: median of a_PIN003 - b_PIN003 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN003 - b_PIN003 = 0 vs.
  Ha: median of a_PIN003 - b_PIN003 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN004 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN004 - b_PIN004 = 0 vs.
  Ha: median of a_PIN004 - b_PIN004 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN004 - b_PIN004 = 0 vs.
  Ha: median of a_PIN004 - b_PIN004 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN004 - b_PIN004 = 0 vs.
  Ha: median of a_PIN004 - b_PIN004 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN005 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
```

```
    negative |           1           .5
        zero |           0            0
-------------+-----------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PIN005 - b_PIN005 = 0 vs.
  Ha: median of a_PIN005 - b_PIN005 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN005 - b_PIN005 = 0 vs.
  Ha: median of a_PIN005 - b_PIN005 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN005 - b_PIN005 = 0 vs.
  Ha: median of a_PIN005 - b_PIN005 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PIN006 ----------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           1           .5
    negative |           0           .5
        zero |           0            0
-------------+-----------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PIN006 - b_PIN006 = 0 vs.
  Ha: median of a_PIN006 - b_PIN006 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PIN006 - b_PIN006 = 0 vs.
  Ha: median of a_PIN006 - b_PIN006 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PIN006 - b_PIN006 = 0 vs.
  Ha: median of a_PIN006 - b_PIN006 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PIN007 ----------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           1           .5
    negative |           0           .5
        zero |           0            0
-------------+-----------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PIN007 - b_PIN007 = 0 vs.
  Ha: median of a_PIN007 - b_PIN007 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PIN007 - b_PIN007 = 0 vs.
```

```
  Ha: median of a_PIN007 - b_PIN007 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PIN007 - b_PIN007 = 0 vs.
  Ha: median of a_PIN007 - b_PIN007 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN008 ---------------------
Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN008 - b_PIN008 = 0 vs.
  Ha: median of a_PIN008 - b_PIN008 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN008 - b_PIN008 = 0 vs.
  Ha: median of a_PIN008 - b_PIN008 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN008 - b_PIN008 = 0 vs.
  Ha: median of a_PIN008 - b_PIN008 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN009 ---------------------
Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN009 - b_PIN009 = 0 vs.
  Ha: median of a_PIN009 - b_PIN009 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN009 - b_PIN009 = 0 vs.
  Ha: median of a_PIN009 - b_PIN009 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN009 - b_PIN009 = 0 vs.
  Ha: median of a_PIN009 - b_PIN009 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN010 ---------------------
Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN010 - b_PIN010 = 0 vs.
  Ha: median of a_PIN010 - b_PIN010 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN010 - b_PIN010 = 0 vs.
  Ha: median of a_PIN010 - b_PIN010 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN010 - b_PIN010 = 0 vs.
  Ha: median of a_PIN010 - b_PIN010 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN011 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN011 - b_PIN011 = 0 vs.
  Ha: median of a_PIN011 - b_PIN011 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PIN011 - b_PIN011 = 0 vs.
  Ha: median of a_PIN011 - b_PIN011 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PIN011 - b_PIN011 = 0 vs.
  Ha: median of a_PIN011 - b_PIN011 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PIN012 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PIN012 - b_PIN012 = 0 vs.
  Ha: median of a_PIN012 - b_PIN012 > 0
```

```
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PIN012 - b_PIN012 = 0 vs.
  Ha: median of a_PIN012 - b_PIN012 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PIN012 - b_PIN012 = 0 vs.
  Ha: median of a_PIN012 - b_PIN012 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL001 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL001 - b_PVOL001 = 0 vs.
  Ha: median of a_PVOL001 - b_PVOL001 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL001 - b_PVOL001 = 0 vs.
  Ha: median of a_PVOL001 - b_PVOL001 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL001 - b_PVOL001 = 0 vs.
  Ha: median of a_PVOL001 - b_PVOL001 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL002 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL002 - b_PVOL002 = 0 vs.
  Ha: median of a_PVOL002 - b_PVOL002 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL002 - b_PVOL002 = 0 vs.
  Ha: median of a_PVOL002 - b_PVOL002 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL002 - b_PVOL002 = 0 vs.
  Ha: median of a_PVOL002 - b_PVOL002 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL003 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL003 - b_PVOL003 = 0 vs.
  Ha: median of a_PVOL003 - b_PVOL003 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL003 - b_PVOL003 = 0 vs.
  Ha: median of a_PVOL003 - b_PVOL003 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL003 - b_PVOL003 = 0 vs.
  Ha: median of a_PVOL003 - b_PVOL003 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL004 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL004 - b_PVOL004 = 0 vs.
  Ha: median of a_PVOL004 - b_PVOL004 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL004 - b_PVOL004 = 0 vs.
  Ha: median of a_PVOL004 - b_PVOL004 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL004 - b_PVOL004 = 0 vs.
  Ha: median of a_PVOL004 - b_PVOL004 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL005 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1
```

```
One-sided tests:
  Ho: median of a_PVOL005 - b_PVOL005 = 0 vs.
  Ha: median of a_PVOL005 - b_PVOL005 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL005 - b_PVOL005 = 0 vs.
  Ha: median of a_PVOL005 - b_PVOL005 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL005 - b_PVOL005 = 0 vs.
  Ha: median of a_PVOL005 - b_PVOL005 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL006 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL006 - b_PVOL006 = 0 vs.
  Ha: median of a_PVOL006 - b_PVOL006 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL006 - b_PVOL006 = 0 vs.
  Ha: median of a_PVOL006 - b_PVOL006 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL006 - b_PVOL006 = 0 vs.
  Ha: median of a_PVOL006 - b_PVOL006 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL007 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL007 - b_PVOL007 = 0 vs.
  Ha: median of a_PVOL007 - b_PVOL007 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL007 - b_PVOL007 = 0 vs.
  Ha: median of a_PVOL007 - b_PVOL007 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000
```

```
Two-sided test:
  Ho: median of a_PVOL007 - b_PVOL007 = 0 vs.
  Ha: median of a_PVOL007 - b_PVOL007 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL008 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL008 - b_PVOL008 = 0 vs.
  Ha: median of a_PVOL008 - b_PVOL008 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL008 - b_PVOL008 = 0 vs.
  Ha: median of a_PVOL008 - b_PVOL008 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL008 - b_PVOL008 = 0 vs.
  Ha: median of a_PVOL008 - b_PVOL008 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL009 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL009 - b_PVOL009 = 0 vs.
  Ha: median of a_PVOL009 - b_PVOL009 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL009 - b_PVOL009 = 0 vs.
  Ha: median of a_PVOL009 - b_PVOL009 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL009 - b_PVOL009 = 0 vs.
  Ha: median of a_PVOL009 - b_PVOL009 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL010 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
```

```
    negative |          0          .5
        zero |          0           0
-------------+-----------------------
         all |          1           1

One-sided tests:
  Ho: median of a_PVOL010 - b_PVOL010 = 0 vs.
  Ha: median of a_PVOL010 - b_PVOL010 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL010 - b_PVOL010 = 0 vs.
  Ha: median of a_PVOL010 - b_PVOL010 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL010 - b_PVOL010 = 0 vs.
  Ha: median of a_PVOL010 - b_PVOL010 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL011 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |          0          .5
    negative |          1          .5
        zero |          0           0
-------------+-----------------------
         all |          1           1

One-sided tests:
  Ho: median of a_PVOL011 - b_PVOL011 = 0 vs.
  Ha: median of a_PVOL011 - b_PVOL011 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL011 - b_PVOL011 = 0 vs.
  Ha: median of a_PVOL011 - b_PVOL011 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL011 - b_PVOL011 = 0 vs.
  Ha: median of a_PVOL011 - b_PVOL011 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL012 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |          1          .5
    negative |          0          .5
        zero |          0           0
-------------+-----------------------
         all |          1           1

One-sided tests:
  Ho: median of a_PVOL012 - b_PVOL012 = 0 vs.
  Ha: median of a_PVOL012 - b_PVOL012 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL012 - b_PVOL012 = 0 vs.
```

```
  Ha: median of a_PVOL012 - b_PVOL012 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL012 - b_PVOL012 = 0 vs.
  Ha: median of a_PVOL012 - b_PVOL012 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL013 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL013 - b_PVOL013 = 0 vs.
  Ha: median of a_PVOL013 - b_PVOL013 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL013 - b_PVOL013 = 0 vs.
  Ha: median of a_PVOL013 - b_PVOL013 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL013 - b_PVOL013 = 0 vs.
  Ha: median of a_PVOL013 - b_PVOL013 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL014 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL014 - b_PVOL014 = 0 vs.
  Ha: median of a_PVOL014 - b_PVOL014 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL014 - b_PVOL014 = 0 vs.
  Ha: median of a_PVOL014 - b_PVOL014 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL014 - b_PVOL014 = 0 vs.
  Ha: median of a_PVOL014 - b_PVOL014 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL015 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL015 - b_PVOL015 = 0 vs.
  Ha: median of a_PVOL015 - b_PVOL015 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL015 - b_PVOL015 = 0 vs.
  Ha: median of a_PVOL015 - b_PVOL015 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL015 - b_PVOL015 = 0 vs.
  Ha: median of a_PVOL015 - b_PVOL015 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL016 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL016 - b_PVOL016 = 0 vs.
  Ha: median of a_PVOL016 - b_PVOL016 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL016 - b_PVOL016 = 0 vs.
  Ha: median of a_PVOL016 - b_PVOL016 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL016 - b_PVOL016 = 0 vs.
  Ha: median of a_PVOL016 - b_PVOL016 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL017 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL017 - b_PVOL017 = 0 vs.
  Ha: median of a_PVOL017 - b_PVOL017 > 0
```

```
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL017 - b_PVOL017 = 0 vs.
  Ha: median of a_PVOL017 - b_PVOL017 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL017 - b_PVOL017 = 0 vs.
  Ha: median of a_PVOL017 - b_PVOL017 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL018 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL018 - b_PVOL018 = 0 vs.
  Ha: median of a_PVOL018 - b_PVOL018 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL018 - b_PVOL018 = 0 vs.
  Ha: median of a_PVOL018 - b_PVOL018 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL018 - b_PVOL018 = 0 vs.
  Ha: median of a_PVOL018 - b_PVOL018 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL019 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL019 - b_PVOL019 = 0 vs.
  Ha: median of a_PVOL019 - b_PVOL019 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL019 - b_PVOL019 = 0 vs.
  Ha: median of a_PVOL019 - b_PVOL019 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL019 - b_PVOL019 = 0 vs.
  Ha: median of a_PVOL019 - b_PVOL019 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL020 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL020 - b_PVOL020 = 0 vs.
  Ha: median of a_PVOL020 - b_PVOL020 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL020 - b_PVOL020 = 0 vs.
  Ha: median of a_PVOL020 - b_PVOL020 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL020 - b_PVOL020 = 0 vs.
  Ha: median of a_PVOL020 - b_PVOL020 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL021 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL021 - b_PVOL021 = 0 vs.
  Ha: median of a_PVOL021 - b_PVOL021 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL021 - b_PVOL021 = 0 vs.
  Ha: median of a_PVOL021 - b_PVOL021 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL021 - b_PVOL021 = 0 vs.
  Ha: median of a_PVOL021 - b_PVOL021 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL022 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1
```

```
One-sided tests:
  Ho: median of a_PVOL022 - b_PVOL022 = 0 vs.
  Ha: median of a_PVOL022 - b_PVOL022 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL022 - b_PVOL022 = 0 vs.
  Ha: median of a_PVOL022 - b_PVOL022 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL022 - b_PVOL022 = 0 vs.
  Ha: median of a_PVOL022 - b_PVOL022 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL023 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL023 - b_PVOL023 = 0 vs.
  Ha: median of a_PVOL023 - b_PVOL023 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL023 - b_PVOL023 = 0 vs.
  Ha: median of a_PVOL023 - b_PVOL023 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL023 - b_PVOL023 = 0 vs.
  Ha: median of a_PVOL023 - b_PVOL023 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL024 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL024 - b_PVOL024 = 0 vs.
  Ha: median of a_PVOL024 - b_PVOL024 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL024 - b_PVOL024 = 0 vs.
  Ha: median of a_PVOL024 - b_PVOL024 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000
```

```
Two-sided test:
  Ho: median of a_PVOL024 - b_PVOL024 = 0 vs.
  Ha: median of a_PVOL024 - b_PVOL024 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL025 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL025 - b_PVOL025 = 0 vs.
  Ha: median of a_PVOL025 - b_PVOL025 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL025 - b_PVOL025 = 0 vs.
  Ha: median of a_PVOL025 - b_PVOL025 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL025 - b_PVOL025 = 0 vs.
  Ha: median of a_PVOL025 - b_PVOL025 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL026 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL026 - b_PVOL026 = 0 vs.
  Ha: median of a_PVOL026 - b_PVOL026 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL026 - b_PVOL026 = 0 vs.
  Ha: median of a_PVOL026 - b_PVOL026 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL026 - b_PVOL026 = 0 vs.
  Ha: median of a_PVOL026 - b_PVOL026 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL027 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
```

```
    negative |           1           .5
        zero |           0            0
-------------+------------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PVOL027 - b_PVOL027 = 0 vs.
  Ha: median of a_PVOL027 - b_PVOL027 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL027 - b_PVOL027 = 0 vs.
  Ha: median of a_PVOL027 - b_PVOL027 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL027 - b_PVOL027 = 0 vs.
  Ha: median of a_PVOL027 - b_PVOL027 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL028 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           .5
    negative |           1           .5
        zero |           0            0
-------------+------------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PVOL028 - b_PVOL028 = 0 vs.
  Ha: median of a_PVOL028 - b_PVOL028 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL028 - b_PVOL028 = 0 vs.
  Ha: median of a_PVOL028 - b_PVOL028 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL028 - b_PVOL028 = 0 vs.
  Ha: median of a_PVOL028 - b_PVOL028 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL029 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           .5
    negative |           0           .5
        zero |           0            0
-------------+------------------------
         all |           1            1

One-sided tests:
  Ho: median of a_PVOL029 - b_PVOL029 = 0 vs.
  Ha: median of a_PVOL029 - b_PVOL029 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL029 - b_PVOL029 = 0 vs.
```

```
  Ha: median of a_PVOL029 - b_PVOL029 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL029 - b_PVOL029 = 0 vs.
  Ha: median of a_PVOL029 - b_PVOL029 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL030 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL030 - b_PVOL030 = 0 vs.
  Ha: median of a_PVOL030 - b_PVOL030 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL030 - b_PVOL030 = 0 vs.
  Ha: median of a_PVOL030 - b_PVOL030 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL030 - b_PVOL030 = 0 vs.
  Ha: median of a_PVOL030 - b_PVOL030 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL031 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL031 - b_PVOL031 = 0 vs.
  Ha: median of a_PVOL031 - b_PVOL031 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL031 - b_PVOL031 = 0 vs.
  Ha: median of a_PVOL031 - b_PVOL031 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL031 - b_PVOL031 = 0 vs.
  Ha: median of a_PVOL031 - b_PVOL031 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL032 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL032 - b_PVOL032 = 0 vs.
  Ha: median of a_PVOL032 - b_PVOL032 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL032 - b_PVOL032 = 0 vs.
  Ha: median of a_PVOL032 - b_PVOL032 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL032 - b_PVOL032 = 0 vs.
  Ha: median of a_PVOL032 - b_PVOL032 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL033 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL033 - b_PVOL033 = 0 vs.
  Ha: median of a_PVOL033 - b_PVOL033 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL033 - b_PVOL033 = 0 vs.
  Ha: median of a_PVOL033 - b_PVOL033 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL033 - b_PVOL033 = 0 vs.
  Ha: median of a_PVOL033 - b_PVOL033 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL034 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL034 - b_PVOL034 = 0 vs.
  Ha: median of a_PVOL034 - b_PVOL034 > 0
```

```
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL034 - b_PVOL034 = 0 vs.
  Ha: median of a_PVOL034 - b_PVOL034 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL034 - b_PVOL034 = 0 vs.
  Ha: median of a_PVOL034 - b_PVOL034 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL035 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL035 - b_PVOL035 = 0 vs.
  Ha: median of a_PVOL035 - b_PVOL035 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL035 - b_PVOL035 = 0 vs.
  Ha: median of a_PVOL035 - b_PVOL035 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL035 - b_PVOL035 = 0 vs.
  Ha: median of a_PVOL035 - b_PVOL035 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL036 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL036 - b_PVOL036 = 0 vs.
  Ha: median of a_PVOL036 - b_PVOL036 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL036 - b_PVOL036 = 0 vs.
  Ha: median of a_PVOL036 - b_PVOL036 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL036 - b_PVOL036 = 0 vs.
  Ha: median of a_PVOL036 - b_PVOL036 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL037 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL037 - b_PVOL037 = 0 vs.
  Ha: median of a_PVOL037 - b_PVOL037 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL037 - b_PVOL037 = 0 vs.
  Ha: median of a_PVOL037 - b_PVOL037 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL037 - b_PVOL037 = 0 vs.
  Ha: median of a_PVOL037 - b_PVOL037 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL038 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL038 - b_PVOL038 = 0 vs.
  Ha: median of a_PVOL038 - b_PVOL038 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL038 - b_PVOL038 = 0 vs.
  Ha: median of a_PVOL038 - b_PVOL038 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL038 - b_PVOL038 = 0 vs.
  Ha: median of a_PVOL038 - b_PVOL038 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL039 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2
```

```
One-sided tests:
  Ho: median of a_PVOL039 - b_PVOL039 = 0 vs.
  Ha: median of a_PVOL039 - b_PVOL039 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL039 - b_PVOL039 = 0 vs.
  Ha: median of a_PVOL039 - b_PVOL039 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL039 - b_PVOL039 = 0 vs.
  Ha: median of a_PVOL039 - b_PVOL039 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL040 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL040 - b_PVOL040 = 0 vs.
  Ha: median of a_PVOL040 - b_PVOL040 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL040 - b_PVOL040 = 0 vs.
  Ha: median of a_PVOL040 - b_PVOL040 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL040 - b_PVOL040 = 0 vs.
  Ha: median of a_PVOL040 - b_PVOL040 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL041 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL041 - b_PVOL041 = 0 vs.
  Ha: median of a_PVOL041 - b_PVOL041 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL041 - b_PVOL041 = 0 vs.
  Ha: median of a_PVOL041 - b_PVOL041 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500
```

```
Two-sided test:
  Ho: median of a_PVOL041 - b_PVOL041 = 0 vs.
  Ha: median of a_PVOL041 - b_PVOL041 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL042 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL042 - b_PVOL042 = 0 vs.
  Ha: median of a_PVOL042 - b_PVOL042 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL042 - b_PVOL042 = 0 vs.
  Ha: median of a_PVOL042 - b_PVOL042 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL042 - b_PVOL042 = 0 vs.
  Ha: median of a_PVOL042 - b_PVOL042 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL043 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL043 - b_PVOL043 = 0 vs.
  Ha: median of a_PVOL043 - b_PVOL043 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL043 - b_PVOL043 = 0 vs.
  Ha: median of a_PVOL043 - b_PVOL043 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL043 - b_PVOL043 = 0 vs.
  Ha: median of a_PVOL043 - b_PVOL043 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL044 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
```

```
    negative |           2           1
        zero |           0           0
-------------+-----------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL044 - b_PVOL044 = 0 vs.
  Ha: median of a_PVOL044 - b_PVOL044 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL044 - b_PVOL044 = 0 vs.
  Ha: median of a_PVOL044 - b_PVOL044 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL044 - b_PVOL044 = 0 vs.
  Ha: median of a_PVOL044 - b_PVOL044 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL045 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+-----------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL045 - b_PVOL045 = 0 vs.
  Ha: median of a_PVOL045 - b_PVOL045 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL045 - b_PVOL045 = 0 vs.
  Ha: median of a_PVOL045 - b_PVOL045 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL045 - b_PVOL045 = 0 vs.
  Ha: median of a_PVOL045 - b_PVOL045 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL046 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+-----------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL046 - b_PVOL046 = 0 vs.
  Ha: median of a_PVOL046 - b_PVOL046 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL046 - b_PVOL046 = 0 vs.
```

```
  Ha: median of a_PVOL046 - b_PVOL046 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL046 - b_PVOL046 = 0 vs.
  Ha: median of a_PVOL046 - b_PVOL046 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL047 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL047 - b_PVOL047 = 0 vs.
  Ha: median of a_PVOL047 - b_PVOL047 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL047 - b_PVOL047 = 0 vs.
  Ha: median of a_PVOL047 - b_PVOL047 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL047 - b_PVOL047 = 0 vs.
  Ha: median of a_PVOL047 - b_PVOL047 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL048 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL048 - b_PVOL048 = 0 vs.
  Ha: median of a_PVOL048 - b_PVOL048 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL048 - b_PVOL048 = 0 vs.
  Ha: median of a_PVOL048 - b_PVOL048 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL048 - b_PVOL048 = 0 vs.
  Ha: median of a_PVOL048 - b_PVOL048 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL049 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL049 - b_PVOL049 = 0 vs.
  Ha: median of a_PVOL049 - b_PVOL049 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL049 - b_PVOL049 = 0 vs.
  Ha: median of a_PVOL049 - b_PVOL049 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL049 - b_PVOL049 = 0 vs.
  Ha: median of a_PVOL049 - b_PVOL049 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL050 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL050 - b_PVOL050 = 0 vs.
  Ha: median of a_PVOL050 - b_PVOL050 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL050 - b_PVOL050 = 0 vs.
  Ha: median of a_PVOL050 - b_PVOL050 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL050 - b_PVOL050 = 0 vs.
  Ha: median of a_PVOL050 - b_PVOL050 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL051 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL051 - b_PVOL051 = 0 vs.
  Ha: median of a_PVOL051 - b_PVOL051 > 0
```

```
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL051 - b_PVOL051 = 0 vs.
  Ha: median of a_PVOL051 - b_PVOL051 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL051 - b_PVOL051 = 0 vs.
  Ha: median of a_PVOL051 - b_PVOL051 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL052 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL052 - b_PVOL052 = 0 vs.
  Ha: median of a_PVOL052 - b_PVOL052 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL052 - b_PVOL052 = 0 vs.
  Ha: median of a_PVOL052 - b_PVOL052 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL052 - b_PVOL052 = 0 vs.
  Ha: median of a_PVOL052 - b_PVOL052 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL053 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL053 - b_PVOL053 = 0 vs.
  Ha: median of a_PVOL053 - b_PVOL053 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL053 - b_PVOL053 = 0 vs.
  Ha: median of a_PVOL053 - b_PVOL053 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL053 - b_PVOL053 = 0 vs.
  Ha: median of a_PVOL053 - b_PVOL053 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL054 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL054 - b_PVOL054 = 0 vs.
  Ha: median of a_PVOL054 - b_PVOL054 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL054 - b_PVOL054 = 0 vs.
  Ha: median of a_PVOL054 - b_PVOL054 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL054 - b_PVOL054 = 0 vs.
  Ha: median of a_PVOL054 - b_PVOL054 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL055 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL055 - b_PVOL055 = 0 vs.
  Ha: median of a_PVOL055 - b_PVOL055 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL055 - b_PVOL055 = 0 vs.
  Ha: median of a_PVOL055 - b_PVOL055 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL055 - b_PVOL055 = 0 vs.
  Ha: median of a_PVOL055 - b_PVOL055 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL056 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2
```

```
One-sided tests:
  Ho: median of a_PVOL056 - b_PVOL056 = 0 vs.
  Ha: median of a_PVOL056 - b_PVOL056 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL056 - b_PVOL056 = 0 vs.
  Ha: median of a_PVOL056 - b_PVOL056 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL056 - b_PVOL056 = 0 vs.
  Ha: median of a_PVOL056 - b_PVOL056 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL057 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL057 - b_PVOL057 = 0 vs.
  Ha: median of a_PVOL057 - b_PVOL057 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL057 - b_PVOL057 = 0 vs.
  Ha: median of a_PVOL057 - b_PVOL057 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL057 - b_PVOL057 = 0 vs.
  Ha: median of a_PVOL057 - b_PVOL057 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL058 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL058 - b_PVOL058 = 0 vs.
  Ha: median of a_PVOL058 - b_PVOL058 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL058 - b_PVOL058 = 0 vs.
  Ha: median of a_PVOL058 - b_PVOL058 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500
```

```
Two-sided test:
  Ho: median of a_PVOL058 - b_PVOL058 = 0 vs.
  Ha: median of a_PVOL058 - b_PVOL058 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL059 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL059 - b_PVOL059 = 0 vs.
  Ha: median of a_PVOL059 - b_PVOL059 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL059 - b_PVOL059 = 0 vs.
  Ha: median of a_PVOL059 - b_PVOL059 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL059 - b_PVOL059 = 0 vs.
  Ha: median of a_PVOL059 - b_PVOL059 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL060 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL060 - b_PVOL060 = 0 vs.
  Ha: median of a_PVOL060 - b_PVOL060 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL060 - b_PVOL060 = 0 vs.
  Ha: median of a_PVOL060 - b_PVOL060 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL060 - b_PVOL060 = 0 vs.
  Ha: median of a_PVOL060 - b_PVOL060 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL061 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
```

```
    negative |          1          1
        zero |          0          0
-------------+----------------------
         all |          2          2

One-sided tests:
  Ho: median of a_PVOL061 - b_PVOL061 = 0 vs.
  Ha: median of a_PVOL061 - b_PVOL061 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL061 - b_PVOL061 = 0 vs.
  Ha: median of a_PVOL061 - b_PVOL061 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL061 - b_PVOL061 = 0 vs.
  Ha: median of a_PVOL061 - b_PVOL061 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL062 ---------------------

Sign test

        sign |    observed    expected
-------------+----------------------
    positive |          2          1
    negative |          0          1
        zero |          0          0
-------------+----------------------
         all |          2          2

One-sided tests:
  Ho: median of a_PVOL062 - b_PVOL062 = 0 vs.
  Ha: median of a_PVOL062 - b_PVOL062 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL062 - b_PVOL062 = 0 vs.
  Ha: median of a_PVOL062 - b_PVOL062 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL062 - b_PVOL062 = 0 vs.
  Ha: median of a_PVOL062 - b_PVOL062 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL063 ---------------------

Sign test

        sign |    observed    expected
-------------+----------------------
    positive |          0          1
    negative |          2          1
        zero |          0          0
-------------+----------------------
         all |          2          2

One-sided tests:
  Ho: median of a_PVOL063 - b_PVOL063 = 0 vs.
  Ha: median of a_PVOL063 - b_PVOL063 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL063 - b_PVOL063 = 0 vs.
```

```
  Ha: median of a_PVOL063 - b_PVOL063 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL063 - b_PVOL063 = 0 vs.
  Ha: median of a_PVOL063 - b_PVOL063 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL064 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL064 - b_PVOL064 = 0 vs.
  Ha: median of a_PVOL064 - b_PVOL064 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL064 - b_PVOL064 = 0 vs.
  Ha: median of a_PVOL064 - b_PVOL064 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL064 - b_PVOL064 = 0 vs.
  Ha: median of a_PVOL064 - b_PVOL064 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL065 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL065 - b_PVOL065 = 0 vs.
  Ha: median of a_PVOL065 - b_PVOL065 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL065 - b_PVOL065 = 0 vs.
  Ha: median of a_PVOL065 - b_PVOL065 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL065 - b_PVOL065 = 0 vs.
  Ha: median of a_PVOL065 - b_PVOL065 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL066 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL066 - b_PVOL066 = 0 vs.
  Ha: median of a_PVOL066 - b_PVOL066 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL066 - b_PVOL066 = 0 vs.
  Ha: median of a_PVOL066 - b_PVOL066 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL066 - b_PVOL066 = 0 vs.
  Ha: median of a_PVOL066 - b_PVOL066 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL067 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL067 - b_PVOL067 = 0 vs.
  Ha: median of a_PVOL067 - b_PVOL067 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL067 - b_PVOL067 = 0 vs.
  Ha: median of a_PVOL067 - b_PVOL067 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL067 - b_PVOL067 = 0 vs.
  Ha: median of a_PVOL067 - b_PVOL067 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL068 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL068 - b_PVOL068 = 0 vs.
  Ha: median of a_PVOL068 - b_PVOL068 > 0
```

```
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL068 - b_PVOL068 = 0 vs.
  Ha: median of a_PVOL068 - b_PVOL068 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL068 - b_PVOL068 = 0 vs.
  Ha: median of a_PVOL068 - b_PVOL068 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL069 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL069 - b_PVOL069 = 0 vs.
  Ha: median of a_PVOL069 - b_PVOL069 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL069 - b_PVOL069 = 0 vs.
  Ha: median of a_PVOL069 - b_PVOL069 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL069 - b_PVOL069 = 0 vs.
  Ha: median of a_PVOL069 - b_PVOL069 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL070 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL070 - b_PVOL070 = 0 vs.
  Ha: median of a_PVOL070 - b_PVOL070 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL070 - b_PVOL070 = 0 vs.
  Ha: median of a_PVOL070 - b_PVOL070 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL070 - b_PVOL070 = 0 vs.
  Ha: median of a_PVOL070 - b_PVOL070 != 0
      Pr(#positive >= 2 or #negative >= 2) =
```

```
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL071 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL071 - b_PVOL071 = 0 vs.
  Ha: median of a_PVOL071 - b_PVOL071 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL071 - b_PVOL071 = 0 vs.
  Ha: median of a_PVOL071 - b_PVOL071 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL071 - b_PVOL071 = 0 vs.
  Ha: median of a_PVOL071 - b_PVOL071 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL072 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL072 - b_PVOL072 = 0 vs.
  Ha: median of a_PVOL072 - b_PVOL072 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL072 - b_PVOL072 = 0 vs.
  Ha: median of a_PVOL072 - b_PVOL072 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL072 - b_PVOL072 = 0 vs.
  Ha: median of a_PVOL072 - b_PVOL072 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
-------------------------- PVOL073 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2
```

```
One-sided tests:
  Ho: median of a_PVOL073 - b_PVOL073 = 0 vs.
  Ha: median of a_PVOL073 - b_PVOL073 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL073 - b_PVOL073 = 0 vs.
  Ha: median of a_PVOL073 - b_PVOL073 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL073 - b_PVOL073 = 0 vs.
  Ha: median of a_PVOL073 - b_PVOL073 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL074 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL074 - b_PVOL074 = 0 vs.
  Ha: median of a_PVOL074 - b_PVOL074 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL074 - b_PVOL074 = 0 vs.
  Ha: median of a_PVOL074 - b_PVOL074 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL074 - b_PVOL074 = 0 vs.
  Ha: median of a_PVOL074 - b_PVOL074 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL075 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL075 - b_PVOL075 = 0 vs.
  Ha: median of a_PVOL075 - b_PVOL075 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL075 - b_PVOL075 = 0 vs.
  Ha: median of a_PVOL075 - b_PVOL075 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000
```

```
Two-sided test:
  Ho: median of a_PVOL075 - b_PVOL075 = 0 vs.
  Ha: median of a_PVOL075 - b_PVOL075 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL076 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL076 - b_PVOL076 = 0 vs.
  Ha: median of a_PVOL076 - b_PVOL076 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL076 - b_PVOL076 = 0 vs.
  Ha: median of a_PVOL076 - b_PVOL076 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL076 - b_PVOL076 = 0 vs.
  Ha: median of a_PVOL076 - b_PVOL076 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL077 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL077 - b_PVOL077 = 0 vs.
  Ha: median of a_PVOL077 - b_PVOL077 > 0
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL077 - b_PVOL077 = 0 vs.
  Ha: median of a_PVOL077 - b_PVOL077 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL077 - b_PVOL077 = 0 vs.
  Ha: median of a_PVOL077 - b_PVOL077 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL078 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
```

```
    negative |          1           1
        zero |          0           0
-------------+-----------------------
         all |          2           2

One-sided tests:
  Ho: median of a_PVOL078 - b_PVOL078 = 0 vs.
  Ha: median of a_PVOL078 - b_PVOL078 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL078 - b_PVOL078 = 0 vs.
  Ha: median of a_PVOL078 - b_PVOL078 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL078 - b_PVOL078 = 0 vs.
  Ha: median of a_PVOL078 - b_PVOL078 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL079 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |          1           1
    negative |          1           1
        zero |          0           0
-------------+-----------------------
         all |          2           2

One-sided tests:
  Ho: median of a_PVOL079 - b_PVOL079 = 0 vs.
  Ha: median of a_PVOL079 - b_PVOL079 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL079 - b_PVOL079 = 0 vs.
  Ha: median of a_PVOL079 - b_PVOL079 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL079 - b_PVOL079 = 0 vs.
  Ha: median of a_PVOL079 - b_PVOL079 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL080 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |          0          .5
    negative |          1          .5
        zero |          1           1
-------------+-----------------------
         all |          2           2

One-sided tests:
  Ho: median of a_PVOL080 - b_PVOL080 = 0 vs.
  Ha: median of a_PVOL080 - b_PVOL080 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL080 - b_PVOL080 = 0 vs.
```

```
  Ha: median of a_PVOL080 - b_PVOL080 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL080 - b_PVOL080 = 0 vs.
  Ha: median of a_PVOL080 - b_PVOL080 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL081 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL081 - b_PVOL081 = 0 vs.
  Ha: median of a_PVOL081 - b_PVOL081 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL081 - b_PVOL081 = 0 vs.
  Ha: median of a_PVOL081 - b_PVOL081 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL081 - b_PVOL081 = 0 vs.
  Ha: median of a_PVOL081 - b_PVOL081 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL082 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0           1
    negative |           2           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL082 - b_PVOL082 = 0 vs.
  Ha: median of a_PVOL082 - b_PVOL082 > 0
      Pr(#positive >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL082 - b_PVOL082 = 0 vs.
  Ha: median of a_PVOL082 - b_PVOL082 < 0
      Pr(#negative >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

Two-sided test:
  Ho: median of a_PVOL082 - b_PVOL082 = 0 vs.
  Ha: median of a_PVOL082 - b_PVOL082 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL083 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL083 - b_PVOL083 = 0 vs.
  Ha: median of a_PVOL083 - b_PVOL083 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL083 - b_PVOL083 = 0 vs.
  Ha: median of a_PVOL083 - b_PVOL083 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL083 - b_PVOL083 = 0 vs.
  Ha: median of a_PVOL083 - b_PVOL083 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL084 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL084 - b_PVOL084 = 0 vs.
  Ha: median of a_PVOL084 - b_PVOL084 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL084 - b_PVOL084 = 0 vs.
  Ha: median of a_PVOL084 - b_PVOL084 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL084 - b_PVOL084 = 0 vs.
  Ha: median of a_PVOL084 - b_PVOL084 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL085 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           2           1
    negative |           0           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL085 - b_PVOL085 = 0 vs.
  Ha: median of a_PVOL085 - b_PVOL085 > 0
```

```
      Pr(#positive >= 2) =
         Binomial(n = 2, x >= 2, p = 0.5) =  0.2500

  Ho: median of a_PVOL085 - b_PVOL085 = 0 vs.
  Ha: median of a_PVOL085 - b_PVOL085 < 0
      Pr(#negative >= 0) =
         Binomial(n = 2, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL085 - b_PVOL085 = 0 vs.
  Ha: median of a_PVOL085 - b_PVOL085 != 0
      Pr(#positive >= 2 or #negative >= 2) =
         min(1, 2*Binomial(n = 2, x >= 2, p = 0.5)) =  0.5000
--------------------------- PVOL086 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL086 - b_PVOL086 = 0 vs.
  Ha: median of a_PVOL086 - b_PVOL086 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL086 - b_PVOL086 = 0 vs.
  Ha: median of a_PVOL086 - b_PVOL086 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL086 - b_PVOL086 = 0 vs.
  Ha: median of a_PVOL086 - b_PVOL086 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL087 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL087 - b_PVOL087 = 0 vs.
  Ha: median of a_PVOL087 - b_PVOL087 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL087 - b_PVOL087 = 0 vs.
  Ha: median of a_PVOL087 - b_PVOL087 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL087 - b_PVOL087 = 0 vs.
  Ha: median of a_PVOL087 - b_PVOL087 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL088 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1           1
    negative |           1           1
        zero |           0           0
-------------+------------------------
         all |           2           2

One-sided tests:
  Ho: median of a_PVOL088 - b_PVOL088 = 0 vs.
  Ha: median of a_PVOL088 - b_PVOL088 > 0
      Pr(#positive >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

  Ho: median of a_PVOL088 - b_PVOL088 = 0 vs.
  Ha: median of a_PVOL088 - b_PVOL088 < 0
      Pr(#negative >= 1) =
         Binomial(n = 2, x >= 1, p = 0.5) =  0.7500

Two-sided test:
  Ho: median of a_PVOL088 - b_PVOL088 = 0 vs.
  Ha: median of a_PVOL088 - b_PVOL088 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 2, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL089 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL089 - b_PVOL089 = 0 vs.
  Ha: median of a_PVOL089 - b_PVOL089 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL089 - b_PVOL089 = 0 vs.
  Ha: median of a_PVOL089 - b_PVOL089 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL089 - b_PVOL089 = 0 vs.
  Ha: median of a_PVOL089 - b_PVOL089 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL090 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1
```

```
One-sided tests:
  Ho: median of a_PVOL090 - b_PVOL090 = 0 vs.
  Ha: median of a_PVOL090 - b_PVOL090 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL090 - b_PVOL090 = 0 vs.
  Ha: median of a_PVOL090 - b_PVOL090 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL090 - b_PVOL090 = 0 vs.
  Ha: median of a_PVOL090 - b_PVOL090 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL091 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL091 - b_PVOL091 = 0 vs.
  Ha: median of a_PVOL091 - b_PVOL091 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL091 - b_PVOL091 = 0 vs.
  Ha: median of a_PVOL091 - b_PVOL091 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL091 - b_PVOL091 = 0 vs.
  Ha: median of a_PVOL091 - b_PVOL091 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL092 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL092 - b_PVOL092 = 0 vs.
  Ha: median of a_PVOL092 - b_PVOL092 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL092 - b_PVOL092 = 0 vs.
  Ha: median of a_PVOL092 - b_PVOL092 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000
```

```
Two-sided test:
  Ho: median of a_PVOL092 - b_PVOL092 = 0 vs.
  Ha: median of a_PVOL092 - b_PVOL092 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL093 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL093 - b_PVOL093 = 0 vs.
  Ha: median of a_PVOL093 - b_PVOL093 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL093 - b_PVOL093 = 0 vs.
  Ha: median of a_PVOL093 - b_PVOL093 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL093 - b_PVOL093 = 0 vs.
  Ha: median of a_PVOL093 - b_PVOL093 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL094 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL094 - b_PVOL094 = 0 vs.
  Ha: median of a_PVOL094 - b_PVOL094 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL094 - b_PVOL094 = 0 vs.
  Ha: median of a_PVOL094 - b_PVOL094 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL094 - b_PVOL094 = 0 vs.
  Ha: median of a_PVOL094 - b_PVOL094 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL095 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
```

```
    negative |           1          .5
        zero |           0           0
-------------+-----------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL095 - b_PVOL095 = 0 vs.
  Ha: median of a_PVOL095 - b_PVOL095 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL095 - b_PVOL095 = 0 vs.
  Ha: median of a_PVOL095 - b_PVOL095 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL095 - b_PVOL095 = 0 vs.
  Ha: median of a_PVOL095 - b_PVOL095 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL096 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+-----------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL096 - b_PVOL096 = 0 vs.
  Ha: median of a_PVOL096 - b_PVOL096 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL096 - b_PVOL096 = 0 vs.
  Ha: median of a_PVOL096 - b_PVOL096 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL096 - b_PVOL096 = 0 vs.
  Ha: median of a_PVOL096 - b_PVOL096 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- PVOL097 ---------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+-----------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL097 - b_PVOL097 = 0 vs.
  Ha: median of a_PVOL097 - b_PVOL097 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_PVOL097 - b_PVOL097 = 0 vs.
```

```
  Ha: median of a_PVOL097 - b_PVOL097 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_PVOL097 - b_PVOL097 = 0 vs.
  Ha: median of a_PVOL097 - b_PVOL097 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- PVOL098 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_PVOL098 - b_PVOL098 = 0 vs.
  Ha: median of a_PVOL098 - b_PVOL098 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_PVOL098 - b_PVOL098 = 0 vs.
  Ha: median of a_PVOL098 - b_PVOL098 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_PVOL098 - b_PVOL098 = 0 vs.
  Ha: median of a_PVOL098 - b_PVOL098 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW001 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW001 - b_BW001 = 0 vs.
  Ha: median of a_BW001 - b_BW001 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW001 - b_BW001 = 0 vs.
  Ha: median of a_BW001 - b_BW001 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW001 - b_BW001 = 0 vs.
  Ha: median of a_BW001 - b_BW001 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW002 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW002 - b_BW002 = 0 vs.
  Ha: median of a_BW002 - b_BW002 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW002 - b_BW002 = 0 vs.
  Ha: median of a_BW002 - b_BW002 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW002 - b_BW002 = 0 vs.
  Ha: median of a_BW002 - b_BW002 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW003 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW003 - b_BW003 = 0 vs.
  Ha: median of a_BW003 - b_BW003 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW003 - b_BW003 = 0 vs.
  Ha: median of a_BW003 - b_BW003 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW003 - b_BW003 = 0 vs.
  Ha: median of a_BW003 - b_BW003 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW004 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW004 - b_BW004 = 0 vs.
  Ha: median of a_BW004 - b_BW004 > 0
```

```
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW004 - b_BW004 = 0 vs.
  Ha: median of a_BW004 - b_BW004 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW004 - b_BW004 = 0 vs.
  Ha: median of a_BW004 - b_BW004 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW005 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW005 - b_BW005 = 0 vs.
  Ha: median of a_BW005 - b_BW005 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW005 - b_BW005 = 0 vs.
  Ha: median of a_BW005 - b_BW005 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW005 - b_BW005 = 0 vs.
  Ha: median of a_BW005 - b_BW005 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW006 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW006 - b_BW006 = 0 vs.
  Ha: median of a_BW006 - b_BW006 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW006 - b_BW006 = 0 vs.
  Ha: median of a_BW006 - b_BW006 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW006 - b_BW006 = 0 vs.
  Ha: median of a_BW006 - b_BW006 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW007 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW007 - b_BW007 = 0 vs.
  Ha: median of a_BW007 - b_BW007 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW007 - b_BW007 = 0 vs.
  Ha: median of a_BW007 - b_BW007 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW007 - b_BW007 = 0 vs.
  Ha: median of a_BW007 - b_BW007 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW008 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW008 - b_BW008 = 0 vs.
  Ha: median of a_BW008 - b_BW008 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW008 - b_BW008 = 0 vs.
  Ha: median of a_BW008 - b_BW008 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW008 - b_BW008 = 0 vs.
  Ha: median of a_BW008 - b_BW008 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW009 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1
```

```
One-sided tests:
  Ho: median of a_BW009 - b_BW009 = 0 vs.
  Ha: median of a_BW009 - b_BW009 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW009 - b_BW009 = 0 vs.
  Ha: median of a_BW009 - b_BW009 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW009 - b_BW009 = 0 vs.
  Ha: median of a_BW009 - b_BW009 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW010 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW010 - b_BW010 = 0 vs.
  Ha: median of a_BW010 - b_BW010 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW010 - b_BW010 = 0 vs.
  Ha: median of a_BW010 - b_BW010 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW010 - b_BW010 = 0 vs.
  Ha: median of a_BW010 - b_BW010 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW011 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW011 - b_BW011 = 0 vs.
  Ha: median of a_BW011 - b_BW011 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW011 - b_BW011 = 0 vs.
  Ha: median of a_BW011 - b_BW011 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000
```

```
Two-sided test:
  Ho: median of a_BW011 - b_BW011 = 0 vs.
  Ha: median of a_BW011 - b_BW011 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW012 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW012 - b_BW012 = 0 vs.
  Ha: median of a_BW012 - b_BW012 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW012 - b_BW012 = 0 vs.
  Ha: median of a_BW012 - b_BW012 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW012 - b_BW012 = 0 vs.
  Ha: median of a_BW012 - b_BW012 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW013 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW013 - b_BW013 = 0 vs.
  Ha: median of a_BW013 - b_BW013 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW013 - b_BW013 = 0 vs.
  Ha: median of a_BW013 - b_BW013 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW013 - b_BW013 = 0 vs.
  Ha: median of a_BW013 - b_BW013 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW014 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
```

```
    negative |          1          .5
        zero |          0           0
-------------+-----------------------
         all |          1           1

One-sided tests:
  Ho: median of a_BW014 - b_BW014 = 0 vs.
  Ha: median of a_BW014 - b_BW014 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW014 - b_BW014 = 0 vs.
  Ha: median of a_BW014 - b_BW014 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW014 - b_BW014 = 0 vs.
  Ha: median of a_BW014 - b_BW014 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW015 ----------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |          1          .5
    negative |          0          .5
        zero |          0           0
-------------+-----------------------
         all |          1           1

One-sided tests:
  Ho: median of a_BW015 - b_BW015 = 0 vs.
  Ha: median of a_BW015 - b_BW015 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW015 - b_BW015 = 0 vs.
  Ha: median of a_BW015 - b_BW015 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW015 - b_BW015 = 0 vs.
  Ha: median of a_BW015 - b_BW015 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW016 ----------------------

Sign test

        sign |    observed    expected
-------------+-----------------------
    positive |          1          .5
    negative |          0          .5
        zero |          0           0
-------------+-----------------------
         all |          1           1

One-sided tests:
  Ho: median of a_BW016 - b_BW016 = 0 vs.
  Ha: median of a_BW016 - b_BW016 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW016 - b_BW016 = 0 vs.
```

```
  Ha: median of a_BW016 - b_BW016 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW016 - b_BW016 = 0 vs.
  Ha: median of a_BW016 - b_BW016 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW017 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW017 - b_BW017 = 0 vs.
  Ha: median of a_BW017 - b_BW017 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW017 - b_BW017 = 0 vs.
  Ha: median of a_BW017 - b_BW017 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW017 - b_BW017 = 0 vs.
  Ha: median of a_BW017 - b_BW017 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW018 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW018 - b_BW018 = 0 vs.
  Ha: median of a_BW018 - b_BW018 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW018 - b_BW018 = 0 vs.
  Ha: median of a_BW018 - b_BW018 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW018 - b_BW018 = 0 vs.
  Ha: median of a_BW018 - b_BW018 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW019 ---------------------

Sign test
```

```
        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW019 - b_BW019 = 0 vs.
  Ha: median of a_BW019 - b_BW019 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW019 - b_BW019 = 0 vs.
  Ha: median of a_BW019 - b_BW019 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW019 - b_BW019 = 0 vs.
  Ha: median of a_BW019 - b_BW019 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW020 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW020 - b_BW020 = 0 vs.
  Ha: median of a_BW020 - b_BW020 > 0
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW020 - b_BW020 = 0 vs.
  Ha: median of a_BW020 - b_BW020 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW020 - b_BW020 = 0 vs.
  Ha: median of a_BW020 - b_BW020 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
--------------------------- BW021 ----------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           1          .5
    negative |           0          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW021 - b_BW021 = 0 vs.
  Ha: median of a_BW021 - b_BW021 > 0
```

```
      Pr(#positive >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

  Ho: median of a_BW021 - b_BW021 = 0 vs.
  Ha: median of a_BW021 - b_BW021 < 0
      Pr(#negative >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

Two-sided test:
  Ho: median of a_BW021 - b_BW021 = 0 vs.
  Ha: median of a_BW021 - b_BW021 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW022 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW022 - b_BW022 = 0 vs.
  Ha: median of a_BW022 - b_BW022 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW022 - b_BW022 = 0 vs.
  Ha: median of a_BW022 - b_BW022 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW022 - b_BW022 = 0 vs.
  Ha: median of a_BW022 - b_BW022 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW023 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW023 - b_BW023 = 0 vs.
  Ha: median of a_BW023 - b_BW023 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW023 - b_BW023 = 0 vs.
  Ha: median of a_BW023 - b_BW023 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW023 - b_BW023 = 0 vs.
  Ha: median of a_BW023 - b_BW023 != 0
      Pr(#positive >= 1 or #negative >= 1) =
```

```
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW024 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW024 - b_BW024 = 0 vs.
  Ha: median of a_BW024 - b_BW024 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW024 - b_BW024 = 0 vs.
  Ha: median of a_BW024 - b_BW024 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW024 - b_BW024 = 0 vs.
  Ha: median of a_BW024 - b_BW024 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW025 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1

One-sided tests:
  Ho: median of a_BW025 - b_BW025 = 0 vs.
  Ha: median of a_BW025 - b_BW025 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW025 - b_BW025 = 0 vs.
  Ha: median of a_BW025 - b_BW025 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW025 - b_BW025 = 0 vs.
  Ha: median of a_BW025 - b_BW025 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000
-------------------------- BW026 ---------------------

Sign test

        sign |    observed    expected
-------------+------------------------
    positive |           0          .5
    negative |           1          .5
        zero |           0           0
-------------+------------------------
         all |           1           1
```

```
One-sided tests:
  Ho: median of a_BW026 - b_BW026 = 0 vs.
  Ha: median of a_BW026 - b_BW026 > 0
      Pr(#positive >= 0) =
         Binomial(n = 1, x >= 0, p = 0.5) =  1.0000

  Ho: median of a_BW026 - b_BW026 = 0 vs.
  Ha: median of a_BW026 - b_BW026 < 0
      Pr(#negative >= 1) =
         Binomial(n = 1, x >= 1, p = 0.5) =  0.5000

Two-sided test:
  Ho: median of a_BW026 - b_BW026 = 0 vs.
  Ha: median of a_BW026 - b_BW026 != 0
      Pr(#positive >= 1 or #negative >= 1) =
         min(1, 2*Binomial(n = 1, x >= 1, p = 0.5)) =  1.0000

.
.      log close
      name:  <unnamed>
       log:  C:\Users\ids29\Documents\Stata\Taxes-Subsidies_Granular_Results.log
  log type:  text
 closed on:  19 Nov 2012, 14:15:19
-------------------------------------------------------------------------------
-------------------------------------------------------------
```