DataUtilities.java

```
1     /* ===========================================================
2      * JFreeChart : a free chart library for the Java(tm) platform
3      * ===========================================================
4      *
5      * (C) Copyright 2000-2013, by Object Refinery Limited and Contributors.
6      *
7      * Project Info:  http://www.jfree.org/jfreechart/index.html
8      *
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10     * under the terms of the GNU Lesser General Public License as published by
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12     * (at your option) any later version.
13     *
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20     * License along with this library; if not, write to the Free Software
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22     * USA.
23     *
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25     * Other names may be trademarks of their respective owners.]
26     *
27     * ------------------
28     * DataUtilities.java
29     * ------------------
30     * (C) Copyright 2003-2013, by Object Refinery Limited and contributors.
31     *
32     * Original Author:  David Gilbert (for Object Refinery Limited);
33     * Contributor(s):   Peter Kolb (patch 2511330);
34     *
35     * Changes
36     * -------
37     * 05-Mar-2003 : Version 1 (DG);
38     * 03-Mar-2005 : Moved createNumberArray() and createNumberArray2D() methods
39     *               from the DatasetUtilities class (DG);
40     * 17-May-2005 : Added calculateColumnTotal() and calculateRowTotal()
41     *               methods (DG);
42     * 28-Jan-2009 : Added equal(double[][], double[][]) method (DG);
43     * 28-Jan-2009 : Added clone(double[][]) method (DG);
44     * 04-Feb-2009 : Added calculateColumnTotal/RowTotal variants (PK);
45     * 03-Jul-2013 : Use ParamChecks (DG);
46     *
47     */
48
49     package org.jfree.data;
```

```
50
51     import java.util.Arrays;
52     import org.jfree.chart.util.ParamChecks;
53     import org.jfree.data.general.DatasetUtilities;
54
55     /**
56      * Utility methods for use with some of the data classes (but not the datasets,
57      * see {@link DatasetUtilities}).
58      */
59     public abstract class DataUtilities {
60
61         /**
62          * Tests two arrays for equality.  To be considered equal, the arrays must
63          * have exactly the same dimensions, and the values in each array must also
64          * match (two values that qre both NaN or both INF are considered equal
65          * in this test).
66          *
67          * @param a  the first array (<code>null</code> permitted).
68          * @param b  the second array (<code>null</code> permitted).
69          *
70          * @return A boolean.
71          *
72          * @since 1.0.13
73          */
74         public static boolean equal(double[][] a, double[][] b) {
75  4          if (a == null) {
76  19             return (b == null);
77             }
78  4          if (b == null) {
79  7             return false;  // already know 'a' isn't null
80             }
81  8          if (a.length != b.length) {
82  7             return false;
83             }
84  19         for (int i = 0; i < a.length; i++) {
85  19             if (!Arrays.equals(a[i], b[i])) {
86  7                 return false;
87             }
88         }
89  8          return true;
90         }
91
92         /**
93          * Returns a clone of the specified array.
94          *
95          * @param source  the source array (<code>null</code> not permitted).
96          *
97          * @return A clone of the array.
98          *
99          * @since 1.0.13
100          */
101        public static double[][] clone(double[][] source) {
102 1          ParamChecks.nullNotPermitted(source, "source");
```

```
103              double[][] clone = new double[source.length][];
104 19           for (int i = 0; i < source.length; i++) {
105 9                if (source[i] != null) {
106 5                    double[] row = new double[source[i].length];
107 21                   System.arraycopy(source[i], 0, row, 0, source[i].length);
108 5                    clone[i] = row;
109                  }
110              }
111 2           return clone;
112          }
113
114          /**
115           * Returns the total of the values in one column of the supplied data
116           * table.
117           *
118           * @param data  the table of values (<code>null</code> not permitted).
119           * @param column  the column index (zero-based).
120           *
121           * @return The total of the values in the specified column.
122           */
123          public static double calculateColumnTotal(Values2D data, int column) {
124 1            ParamChecks.nullNotPermitted(data, "data");
125 5            double total = 0.0;
126 1            int rowCount = data.getRowCount();
127 25           for (int r = 0; r < rowCount; r++) {
128 11               Number n = data.getValue(r, column);
129 4                if (n != null) {
130 13                   total += n.doubleValue();
131                  }
132              }
133 7            return total;
134          }
135
136          /**
137           * Returns the total of the values in one column of the supplied data
138           * table by taking only the row numbers in the array into account.
139           *
140           * @param data  the table of values (<code>null</code> not permitted).
141           * @param column  the column index (zero-based).
142           * @param validRows the array with valid rows (zero-based).
143           *
144           * @return The total of the valid values in the specified column.
145           *
146           * @since 1.0.13
147           */
148          public static double calculateColumnTotal(Values2D data, int column,
149                  int[] validRows) {
150 1            ParamChecks.nullNotPermitted(data, "data");
151 5            double total = 0.0;
152 1            int rowCount = data.getRowCount();
153 20           for (int v = 0; v < validRows.length; v++) {
154 10               int row = validRows[v];
155 19               if (row < rowCount) {
```

```
156 11               Number n = data.getValue(row, column);
157 4               if (n != null) {
158 13                   total += n.doubleValue();
159               }
160           }
161       }
162 7       return total;
163   }
164
165   /**
166    * Returns the total of the values in one row of the supplied data
167    * table.
168    *
169    * @param data  the table of values (<code>null</code> not permitted).
170    * @param row  the row index (zero-based).
171    *
172    * @return The total of the values in the specified row.
173    */
174   public static double calculateRowTotal(Values2D data, int row) {
175 1       ParamChecks.nullNotPermitted(data, "data");
176 5       double total = 0.0;
177 1       int columnCount = data.getColumnCount();
178 25      for (int c = 0; c < columnCount; c++) {
179 11          Number n = data.getValue(row, c);
180 4          if (n != null) {
181 13              total += n.doubleValue();
182          }
183      }
184 7      return total;
185   }
186
187   /**
188    * Returns the total of the values in one row of the supplied data
189    * table by taking only the column numbers in the array into account.
190    *
191    * @param data  the table of values (<code>null</code> not permitted).
192    * @param row  the row index (zero-based).
193    * @param validCols the array with valid cols (zero-based).
194    *
195    * @return The total of the valid values in the specified row.
196    *
197    * @since 1.0.13
198    */
199   public static double calculateRowTotal(Values2D data, int row,
200           int[] validCols) {
201 1       ParamChecks.nullNotPermitted(data, "data");
202 5       double total = 0.0;
203 1       int colCount = data.getColumnCount();
204 20      for (int v = 0; v < validCols.length; v++) {
205 10          int col = validCols[v];
206 19          if (col < colCount) {
207 11              Number n = data.getValue(row, col);
208 4              if (n != null) {
```

```
209 13                      total += n.doubleValue();
210                     }
211                 }
212             }
213 7        return total;
214     }
215
216     /**
217      * Constructs an array of <code>Number</code> objects from an array of
218      * <code>double</code> primitives.
219      *
220      * @param data  the data (<code>null</code> not permitted).
221      *
222      * @return An array of <code>Double</code>.
223      */
224     public static Number[] createNumberArray(double[] data) {
225 1        ParamChecks.nullNotPermitted(data, "data");
226         Number[] result = new Number[data.length];
227 19       for (int i = 0; i < data.length; i++) {
228 16           result[i] = new Double(data[i]);
229         }
230 2        return result;
231     }
232
233     /**
234      * Constructs an array of arrays of <code>Number</code> objects from a
235      * corresponding structure containing <code>double</code> primitives.
236      *
237      * @param data  the data (<code>null</code> not permitted).
238      *
239      * @return An array of <code>Double</code>.
240      */
241     public static Number[][] createNumberArray2D(double[][] data) {
242 1        ParamChecks.nullNotPermitted(data, "data");
243         int l1 = data.length;
244 5        Number[][] result = new Number[l1][];
245 25       for (int i = 0; i < l1; i++) {
246 11           result[i] = createNumberArray(data[i]);
247         }
248 2        return result;
249     }
250
251     /**
252      * Returns a {@link KeyedValues} instance that contains the cumulative
253      * percentage values for the data in another {@link KeyedValues} instance.
254      * <p>
255      * The percentages are values between 0.0 and 1.0 (where 1.0 = 100%).
256      *
257      * @param data  the data (<code>null</code> not permitted).
258      *
259      * @return The cumulative percentages.
260      */
261     public static KeyedValues getCumulativePercentages(KeyedValues data) {
```

```
262 1          ParamChecks.nullNotPermitted(data, "data");
263 1          DefaultKeyedValues result = new DefaultKeyedValues();
264 5          double total = 0.0;
265 20         for (int i = 0; i < data.getItemCount(); i++) {
266 6              Number v = data.getValue(i);
267 4              if (v != null) {
268 13                 total = total + v.doubleValue();
269                }
270            }
271 5          double runningTotal = 0.0;
272 20         for (int i = 0; i < data.getItemCount(); i++) {
273 6              Number v = data.getValue(i);
274 4              if (v != null) {
275 13                 runningTotal = runningTotal + v.doubleValue();
276                }
277 25             result.addValue(data.getKey(i), new Double(runningTotal / total));
278            }
279 2          return result;
280        }
281
282    }
```

Mutations

75	1. negated conditional → KILLED 2. removed conditional - replaced equality check with false → KILLED 3. removed conditional - replaced equality check with true → KILLED 4. not equal to equal → KILLED
76	1. replaced boolean return with false for org/jfree/data/DataUtilities::equal → KILLED 2. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED 3. Substituted 1 with 0 → KILLED 4. Substituted 0 with 1 → KILLED 5. negated conditional → KILLED 6. removed conditional - replaced equality check with false → KILLED 7. removed conditional - replaced equality check with true → KILLED 8. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED 9. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED 10. Substituted 0 with 1 → KILLED 11. Substituted 1 with 0 → KILLED 12. Substituted 1 with -1 → SURVIVED 13. Substituted 0 with -1 → KILLED 14. Substituted 1 with -1 → SURVIVED 15. Substituted 1 with 2 → KILLED 16. Substituted 0 with 1 → KILLED 17. Substituted 1 with 0 → KILLED 18. Substituted 0 with -1 → KILLED 19. not equal to equal → KILLED
78	1. negated conditional → KILLED 2. removed conditional - replaced equality check with false → KILLED 3. removed conditional - replaced equality check with true → KILLED 4. not equal to equal → KILLED
79	1. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED 2. Substituted 0 with 1 → KILLED 3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED 4. Substituted 0 with 1 → KILLED 5. Substituted 0 with -1 → KILLED

6. Substituted 0 with 1 → KILLED
7. Substituted 0 with -1 → KILLED

81
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to less than → KILLED
5. equal to less or equal → KILLED
6. equal to greater than → KILLED
7. equal to greater or equal → SURVIVED
8. equal to not equal → KILLED

82
1. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED
2. Substituted 0 with 1 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 0 with 1 → KILLED
5. Substituted 0 with -1 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with -1 → KILLED

84
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed conditional - replaced comparison check with false → KILLED
5. removed conditional - replaced comparison check with true → KILLED
6. Negated integer local variable number 2 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with 1 → KILLED
10. Substituted 0 with -1 → KILLED
11. Less than to less or equal → KILLED
12. Less than to greater than → KILLED
13. Less than to greater or equal → KILLED
14. Less than to equal → KILLED
15. Less than to not equal → SURVIVED
16. Incremented (a++) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED

85
1. negated conditional → KILLED
2. removed call to java/util/Arrays::equals → KILLED
3. removed conditional - replaced equality check with false → KILLED
4. removed conditional - replaced equality check with true → KILLED
5. Negated integer local variable number 2 → KILLED
6. Negated integer local variable number 2 → KILLED
7. not equal to less than → KILLED
8. not equal to less or equal → KILLED
9. not equal to greater than → SURVIVED
10. not equal to greater or equal → KILLED
11. not equal to equal → KILLED
12. Incremented (a++) integer local variable number 2 → KILLED
13. Incremented (a++) integer local variable number 2 → KILLED
14. Decremented (a--) integer local variable number 2 → KILLED
15. Decremented (a--) integer local variable number 2 → TIMED_OUT
16. Incremented (++a) integer local variable number 2 → KILLED
17. Incremented (++a) integer local variable number 2 → KILLED
18. Decremented (--a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED

86
1. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED
2. Substituted 0 with 1 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 0 with 1 → KILLED
5. Substituted 0 with -1 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with -1 → KILLED

89

1. replaced boolean return with false for org/jfree/data/DataUtilities::equal →
KILLED
2. Substituted 1 with 0 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 1 with 0 → KILLED
5. Substituted 1 with -1 → SURVIVED
6. Substituted 1 with -1 → SURVIVED
7. Substituted 1 with 2 → KILLED
8. Substituted 1 with 0 → KILLED

102   1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed conditional - replaced comparison check with false → KILLED
5. removed conditional - replaced comparison check with true → KILLED
6. Negated integer local variable number 2 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with 1 → KILLED

104   10. Substituted 0 with -1 → KILLED
11. Less than to less or equal → KILLED
12. Less than to greater than → KILLED
13. Less than to greater or equal → KILLED
14. Less than to equal → KILLED
15. Less than to not equal → SURVIVED
16. Incremented (a++) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED

1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. Negated integer local variable number 2 → KILLED

105   5. equal to not equal → KILLED
6. Incremented (a++) integer local variable number 2 → KILLED
7. Decremented (a--) integer local variable number 2 → TIMED_OUT
8. Incremented (++a) integer local variable number 2 → KILLED
9. Decremented (--a) integer local variable number 2 → KILLED

1. Negated integer local variable number 2 → KILLED
2. Incremented (a++) integer local variable number 2 → KILLED

106   3. Decremented (a--) integer local variable number 2 → KILLED
4. Incremented (++a) integer local variable number 2 → KILLED
5. Decremented (--a) integer local variable number 2 → KILLED

1. Substituted 0 with 1 → KILLED
2. Substituted 0 with 1 → KILLED
3. removed call to java/lang/System::arraycopy → KILLED
4. Negated integer local variable number 2 → KILLED
5. Negated integer local variable number 2 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED

107   11. Substituted 0 with 1 → KILLED
12. Substituted 0 with -1 → KILLED
13. Substituted 0 with -1 → KILLED
14. Incremented (a++) integer local variable number 2 → KILLED
15. Incremented (a++) integer local variable number 2 → KILLED
16. Decremented (a--) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Incremented (++a) integer local variable number 2 → KILLED
20. Decremented (--a) integer local variable number 2 → KILLED
21. Decremented (--a) integer local variable number 2 → KILLED

108 1. Negated integer local variable number 2 → KILLED
     2. Incremented (a++) integer local variable number 2 → KILLED
     3. Decremented (a--) integer local variable number 2 → TIMED_OUT
     4. Incremented (++a) integer local variable number 2 → KILLED
     5. Decremented (--a) integer local variable number 2 → KILLED

111 1. replaced return value with null for org/jfree/data/DataUtilities::clone →
     KILLED
     2. mutated return of Object value for org/jfree/data/DataUtilities::clone to
     (if (x != null) null else throw new RuntimeException) → KILLED

124 1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
     SURVIVED

125 1. Substituted 0.0 with 1.0 → KILLED
     2. Substituted 0.0 with 1.0 → KILLED
     3. Substituted 0.0 with -1.0 → KILLED
     4. Substituted 0.0 with 1.0 → KILLED
     5. Substituted 0.0 with -1.0 → KILLED

126 1. removed call to org/jfree/data/Values2D::getRowCount → KILLED

127 1. changed conditional boundary → KILLED
     2. Changed increment from 1 to -1 → KILLED
     3. Substituted 0 with 1 → KILLED
     4. negated conditional → KILLED
     5. removed conditional - replaced comparison check with false → KILLED
     6. removed conditional - replaced comparison check with true → KILLED
     7. Negated integer local variable number 5 → KILLED
     8. Negated integer local variable number 4 → KILLED
     9. Substituted 0 with 1 → KILLED
     10. Substituted 0 with -1 → KILLED
     11. Substituted 0 with 1 → KILLED
     12. Substituted 0 with -1 → KILLED
     13. Less than to less or equal → KILLED
     14. Less than to greater than → KILLED
     15. Less than to greater or equal → KILLED
     16. Less than to equal → KILLED
     17. Less than to not equal → SURVIVED
     18. Incremented (a++) integer local variable number 5 → KILLED
     19. Incremented (a++) integer local variable number 4 → KILLED
     20. Decremented (a--) integer local variable number 5 → KILLED
     21. Decremented (a--) integer local variable number 4 → KILLED
     22. Incremented (++a) integer local variable number 5 → KILLED
     23. Incremented (++a) integer local variable number 4 → KILLED
     24. Decremented (--a) integer local variable number 5 → KILLED
     25. Decremented (--a) integer local variable number 4 → KILLED

128 1. removed call to org/jfree/data/Values2D::getValue → KILLED
     2. Negated integer local variable number 5 → KILLED
     3. Negated integer local variable number 1 → KILLED
     4. Incremented (a++) integer local variable number 5 → KILLED
     5. Incremented (a++) integer local variable number 1 → KILLED
     6. Decremented (a--) integer local variable number 5 → TIMED_OUT
     7. Decremented (a--) integer local variable number 1 → KILLED
     8. Incremented (++a) integer local variable number 5 → KILLED
     9. Incremented (++a) integer local variable number 1 → KILLED
     10. Decremented (--a) integer local variable number 5 → KILLED
     11. Decremented (--a) integer local variable number 1 → KILLED

129 1. negated conditional → KILLED
     2. removed conditional - replaced equality check with false → KILLED
     3. removed conditional - replaced equality check with true → KILLED
     4. equal to not equal → KILLED

130 1. Replaced double addition with subtraction → KILLED
     2. removed call to java/lang/Number::doubleValue → KILLED
     3. Negated double local variable number 2 → KILLED
     4. Replaced double operation with first member → KILLED
     5. Replaced double operation by second member → KILLED
     6. Replaced double addition with subtraction → KILLED
     7. Replaced double addition with multiplication → KILLED
     8. Replaced double addition with division → KILLED

9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 2 → SURVIVED
11. Decremented (a--) double local variable number 2 → SURVIVED
12. Incremented (++a) double local variable number 2 → KILLED
13. Decremented (--a) double local variable number 2 → KILLED

133
1. replaced double return with 0.0d for
org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
2. replaced return of double value with -(x + 1) for
org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
3. Negated double local variable number 2 → KILLED
4. Incremented (a++) double local variable number 2 → SURVIVED
5. Decremented (a--) double local variable number 2 → SURVIVED
6. Incremented (++a) double local variable number 2 → KILLED
7. Decremented (--a) double local variable number 2 → KILLED

150
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

151
1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

152
1. removed call to org/jfree/data/Values2D::getRowCount → KILLED

153
1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 6 → KILLED
8. Substituted 0 with 1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED
13. Less than to greater than → KILLED
14. Less than to greater or equal → KILLED
15. Less than to equal → KILLED
16. Less than to not equal → SURVIVED
17. Incremented (a++) integer local variable number 6 → KILLED
18. Decremented (a--) integer local variable number 6 → KILLED
19. Incremented (++a) integer local variable number 6 → KILLED
20. Decremented (--a) integer local variable number 6 → KILLED

154
1. Negated integer local variable number 6 → KILLED
2. Negated integer array field → KILLED
3. Incremented (a++) integer local variable number 6 → KILLED
4. Incremented (a++) integer array field → SURVIVED
5. Decremented (a--) integer local variable number 6 → TIMED_OUT
6. Decremented (a--) integer array field → SURVIVED
7. Incremented (++a) integer local variable number 6 → KILLED
8. Incremented (++a) integer array field → KILLED
9. Decremented (--a) integer local variable number 6 → KILLED
10. Decremented (--a) integer array field → KILLED

155
1. changed conditional boundary → SURVIVED
2. negated conditional → KILLED
3. removed conditional - replaced comparison check with false → KILLED
4. removed conditional - replaced comparison check with true → SURVIVED
5. Negated integer local variable number 7 → SURVIVED
6. Negated integer local variable number 5 → KILLED
7. greater or equal to less than → KILLED
8. greater or equal to less or equal → KILLED
9. greater or equal to greater than → SURVIVED
10. greater or equal to equal → SURVIVED
11. greater or equal to not equal → KILLED
12. Incremented (a++) integer local variable number 7 → KILLED
13. Incremented (a++) integer local variable number 5 → SURVIVED

14. Decremented (a--) integer local variable number 7 → KILLED
15. Decremented (a--) integer local variable number 5 → KILLED
16. Incremented (++a) integer local variable number 7 → KILLED
17. Incremented (++a) integer local variable number 5 → SURVIVED
18. Decremented (--a) integer local variable number 7 → KILLED
19. Decremented (--a) integer local variable number 5 → KILLED

1. removed call to org/jfree/data/Values2D::getValue → KILLED
2. Negated integer local variable number 7 → KILLED
3. Negated integer local variable number 1 → KILLED
4. Incremented (a++) integer local variable number 7 → SURVIVED
5. Incremented (a++) integer local variable number 1 → KILLED
156   6. Decremented (a--) integer local variable number 7 → SURVIVED
7. Decremented (a--) integer local variable number 1 → KILLED
8. Incremented (++a) integer local variable number 7 → KILLED
9. Incremented (++a) integer local variable number 1 → KILLED
10. Decremented (--a) integer local variable number 7 → KILLED
11. Decremented (--a) integer local variable number 1 → KILLED

1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
157   3. removed conditional - replaced equality check with true → KILLED
4. equal to not equal → KILLED

1. Replaced double addition with subtraction → KILLED
2. removed call to java/lang/Number::doubleValue → KILLED
3. Negated double local variable number 3 → KILLED
4. Replaced double operation with first member → KILLED
5. Replaced double operation by second member → KILLED
6. Replaced double addition with subtraction → KILLED
158   7. Replaced double addition with multiplication → KILLED
8. Replaced double addition with division → KILLED
9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 3 → SURVIVED
11. Decremented (a--) double local variable number 3 → SURVIVED
12. Incremented (++a) double local variable number 3 → KILLED
13. Decremented (--a) double local variable number 3 → KILLED

1. replaced double return with 0.0d for
org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
2. replaced return of double value with -(x + 1) for
org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
162   3. Negated double local variable number 3 → KILLED
4. Incremented (a++) double local variable number 3 → SURVIVED
5. Decremented (a--) double local variable number 3 → SURVIVED
6. Incremented (++a) double local variable number 3 → KILLED
7. Decremented (--a) double local variable number 3 → KILLED

175   1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
176   3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

177   1. removed call to org/jfree/data/Values2D::getColumnCount → KILLED

178   1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 5 → KILLED
8. Negated integer local variable number 4 → KILLED
9. Substituted 0 with 1 → KILLED
10. Substituted 0 with -1 → KILLED
11. Substituted 0 with 1 → KILLED
12. Substituted 0 with -1 → KILLED
13. Less than to less or equal → KILLED
14. Less than to greater than → KILLED

```
            15. Less than to greater or equal → KILLED
            16. Less than to equal → KILLED
            17. Less than to not equal → SURVIVED
            18. Incremented (a++) integer local variable number 5 → KILLED
            19. Incremented (a++) integer local variable number 4 → KILLED
            20. Decremented (a--) integer local variable number 5 → KILLED
            21. Decremented (a--) integer local variable number 4 → KILLED
            22. Incremented (++a) integer local variable number 5 → KILLED
            23. Incremented (++a) integer local variable number 4 → KILLED
            24. Decremented (--a) integer local variable number 5 → KILLED
            25. Decremented (--a) integer local variable number 4 → KILLED

            1. removed call to org/jfree/data/Values2D::getValue → KILLED
            2. Negated integer local variable number 1 → KILLED
            3. Negated integer local variable number 5 → KILLED
            4. Incremented (a++) integer local variable number 1 → KILLED
            5. Incremented (a++) integer local variable number 5 → KILLED
179         6. Decremented (a--) integer local variable number 1 → KILLED
            7. Decremented (a--) integer local variable number 5 → TIMED_OUT
            8. Incremented (++a) integer local variable number 1 → KILLED
            9. Incremented (++a) integer local variable number 5 → KILLED
            10. Decremented (--a) integer local variable number 1 → KILLED
            11. Decremented (--a) integer local variable number 5 → KILLED

            1. negated conditional → KILLED
            2. removed conditional - replaced equality check with false → KILLED
180         3. removed conditional - replaced equality check with true → KILLED
            4. equal to not equal → KILLED

            1. Replaced double addition with subtraction → KILLED
            2. removed call to java/lang/Number::doubleValue → KILLED
            3. Negated double local variable number 2 → KILLED
            4. Replaced double operation with first member → KILLED
            5. Replaced double operation by second member → KILLED
            6. Replaced double addition with subtraction → KILLED
181         7. Replaced double addition with multiplication → KILLED
            8. Replaced double addition with division → KILLED
            9. Replaced double addition with modulus → KILLED
            10. Incremented (a++) double local variable number 2 → SURVIVED
            11. Decremented (a--) double local variable number 2 → SURVIVED
            12. Incremented (++a) double local variable number 2 → KILLED
            13. Decremented (--a) double local variable number 2 → KILLED

            1. replaced double return with 0.0d for
            org/jfree/data/DataUtilities::calculateRowTotal → KILLED
            2. replaced return of double value with -(x + 1) for
            org/jfree/data/DataUtilities::calculateRowTotal → KILLED
184         3. Negated double local variable number 2 → KILLED
            4. Incremented (a++) double local variable number 2 → SURVIVED
            5. Decremented (a--) double local variable number 2 → SURVIVED
            6. Incremented (++a) double local variable number 2 → KILLED
            7. Decremented (--a) double local variable number 2 → KILLED

            1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
201         SURVIVED

            1. Substituted 0.0 with 1.0 → KILLED
            2. Substituted 0.0 with 1.0 → KILLED
202         3. Substituted 0.0 with -1.0 → KILLED
            4. Substituted 0.0 with 1.0 → KILLED
            5. Substituted 0.0 with -1.0 → KILLED

203         1. removed call to org/jfree/data/Values2D::getColumnCount → KILLED
204         1. changed conditional boundary → KILLED
            2. Changed increment from 1 to -1 → KILLED
            3. Substituted 0 with 1 → KILLED
            4. negated conditional → KILLED
            5. removed conditional - replaced comparison check with false → KILLED
            6. removed conditional - replaced comparison check with true → KILLED
            7. Negated integer local variable number 6 → KILLED
            8. Substituted 0 with 1 → KILLED
            9. Substituted 0 with -1 → KILLED
```

10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED
13. Less than to greater than → KILLED
14. Less than to greater or equal → KILLED
15. Less than to equal → KILLED
16. Less than to not equal → SURVIVED
17. Incremented (a++) integer local variable number 6 → KILLED
18. Decremented (a--) integer local variable number 6 → KILLED
19. Incremented (++a) integer local variable number 6 → KILLED
20. Decremented (--a) integer local variable number 6 → KILLED

205
1. Negated integer local variable number 6 → KILLED
2. Negated integer array field → KILLED
3. Incremented (a++) integer local variable number 6 → KILLED
4. Incremented (a++) integer array field → SURVIVED
5. Decremented (a--) integer local variable number 6 → TIMED_OUT
6. Decremented (a--) integer array field → SURVIVED
7. Incremented (++a) integer local variable number 6 → KILLED
8. Incremented (++a) integer array field → KILLED
9. Decremented (--a) integer local variable number 6 → KILLED
10. Decremented (--a) integer array field → KILLED

206
1. changed conditional boundary → SURVIVED
2. negated conditional → KILLED
3. removed conditional - replaced comparison check with false → KILLED
4. removed conditional - replaced comparison check with true → SURVIVED
5. Negated integer local variable number 7 → SURVIVED
6. Negated integer local variable number 5 → KILLED
7. greater or equal to less than → KILLED
8. greater or equal to less or equal → KILLED
9. greater or equal to greater than → SURVIVED
10. greater or equal to equal → SURVIVED
11. greater or equal to not equal → KILLED
12. Incremented (a++) integer local variable number 7 → KILLED
13. Incremented (a++) integer local variable number 5 → SURVIVED
14. Decremented (a--) integer local variable number 7 → KILLED
15. Decremented (a--) integer local variable number 5 → KILLED
16. Incremented (++a) integer local variable number 7 → KILLED
17. Incremented (++a) integer local variable number 5 → SURVIVED
18. Decremented (--a) integer local variable number 7 → KILLED
19. Decremented (--a) integer local variable number 5 → KILLED

207
1. removed call to org/jfree/data/Values2D::getValue → KILLED
2. Negated integer local variable number 1 → KILLED
3. Negated integer local variable number 7 → KILLED
4. Incremented (a++) integer local variable number 1 → KILLED
5. Incremented (a++) integer local variable number 7 → SURVIVED
6. Decremented (a--) integer local variable number 1 → KILLED
7. Decremented (a--) integer local variable number 7 → SURVIVED
8. Incremented (++a) integer local variable number 1 → KILLED
9. Incremented (++a) integer local variable number 7 → KILLED
10. Decremented (--a) integer local variable number 1 → KILLED
11. Decremented (--a) integer local variable number 7 → KILLED

208
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to not equal → KILLED

209
1. Replaced double addition with subtraction → KILLED
2. removed call to java/lang/Number::doubleValue → KILLED
3. Negated double local variable number 3 → KILLED
4. Replaced double operation with first member → KILLED
5. Replaced double operation by second member → KILLED
6. Replaced double addition with subtraction → KILLED
7. Replaced double addition with multiplication → KILLED
8. Replaced double addition with division → KILLED
9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 3 → SURVIVED

11. Decremented (a--) double local variable number 3 → SURVIVED
12. Incremented (++a) double local variable number 3 → KILLED
13. Decremented (--a) double local variable number 3 → KILLED

213
1. replaced double return with 0.0d for
org/jfree/data/DataUtilities::calculateRowTotal → KILLED
2. replaced return of double value with -(x + 1) for
org/jfree/data/DataUtilities::calculateRowTotal → KILLED
3. Negated double local variable number 3 → KILLED
4. Incremented (a++) double local variable number 3 → SURVIVED
5. Decremented (a--) double local variable number 3 → SURVIVED
6. Incremented (++a) double local variable number 3 → KILLED
7. Decremented (--a) double local variable number 3 → KILLED

225
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

227
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed conditional - replaced comparison check with false → KILLED
5. removed conditional - replaced comparison check with true → KILLED
6. Negated integer local variable number 2 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with 1 → KILLED
10. Substituted 0 with -1 → KILLED
11. Less than to less or equal → KILLED
12. Less than to greater than → KILLED
13. Less than to greater or equal → KILLED
14. Less than to equal → KILLED
15. Less than to not equal → SURVIVED
16. Incremented (a++) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED

228
1. removed call to java/lang/Double::<init> → KILLED
2. Negated integer local variable number 2 → KILLED
3. Negated integer local variable number 2 → KILLED
4. Negated double array field → KILLED
5. Incremented (a++) integer local variable number 2 → KILLED
6. Incremented (a++) integer local variable number 2 → KILLED
7. Incremented (a++) double array field → SURVIVED
8. Decremented (a--) integer local variable number 2 → KILLED
9. Decremented (a--) integer local variable number 2 → TIMED_OUT
10. Decremented (a--) double array field → SURVIVED
11. Incremented (++a) integer local variable number 2 → KILLED
12. Incremented (++a) integer local variable number 2 → KILLED
13. Incremented (++a) double array field → KILLED
14. Decremented (--a) integer local variable number 2 → KILLED
15. Decremented (--a) integer local variable number 2 → KILLED
16. Decremented (--a) double array field → KILLED

230
1. replaced return value with null for
org/jfree/data/DataUtilities::createNumberArray → KILLED
2. mutated return of Object value for
org/jfree/data/DataUtilities::createNumberArray to (if (x != null) null else
throw new RuntimeException) → KILLED

242
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

244
1. Negated integer local variable number 1 → KILLED
2. Incremented (a++) integer local variable number 1 → KILLED
3. Decremented (a--) integer local variable number 1 → KILLED
4. Incremented (++a) integer local variable number 1 → KILLED
5. Decremented (--a) integer local variable number 1 → KILLED

245
1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED

5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 3 → KILLED
8. Negated integer local variable number 1 → KILLED
9. Substituted 0 with 1 → KILLED
10. Substituted 0 with -1 → KILLED
11. Substituted 0 with 1 → KILLED
12. Substituted 0 with -1 → KILLED
13. Less than to less or equal → KILLED
14. Less than to greater than → KILLED
15. Less than to greater or equal → KILLED
16. Less than to equal → KILLED
17. Less than to not equal → SURVIVED
18. Incremented (a++) integer local variable number 3 → KILLED
19. Incremented (a++) integer local variable number 1 → KILLED
20. Decremented (a--) integer local variable number 3 → KILLED
21. Decremented (a--) integer local variable number 1 → KILLED
22. Incremented (++a) integer local variable number 3 → KILLED
23. Incremented (++a) integer local variable number 1 → KILLED
24. Decremented (--a) integer local variable number 3 → KILLED
25. Decremented (--a) integer local variable number 1 → KILLED

246
1. removed call to org/jfree/data/DataUtilities::createNumberArray → KILLED
2. Negated integer local variable number 3 → KILLED
3. Negated integer local variable number 3 → KILLED
4. Incremented (a++) integer local variable number 3 → KILLED
5. Incremented (a++) integer local variable number 3 → KILLED
6. Decremented (a--) integer local variable number 3 → KILLED
7. Decremented (a--) integer local variable number 3 → TIMED_OUT
8. Incremented (++a) integer local variable number 3 → KILLED
9. Incremented (++a) integer local variable number 3 → KILLED
10. Decremented (--a) integer local variable number 3 → KILLED
11. Decremented (--a) integer local variable number 3 → KILLED

248
1. replaced return value with null for
org/jfree/data/DataUtilities::createNumberArray2D → KILLED
2. mutated return of Object value for
org/jfree/data/DataUtilities::createNumberArray2D to (if (x != null) null else
throw new RuntimeException) → KILLED

262
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

263
1. removed call to org/jfree/data/DefaultKeyedValues::<init> → KILLED

264
1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

265
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed call to org/jfree/data/KeyedValues::getItemCount → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 4 → KILLED
8. Substituted 0 with 1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED
13. Less than to greater than → KILLED
14. Less than to greater or equal → KILLED
15. Less than to equal → KILLED
16. Less than to not equal → SURVIVED
17. Incremented (a++) integer local variable number 4 → KILLED
18. Decremented (a--) integer local variable number 4 → KILLED
19. Incremented (++a) integer local variable number 4 → KILLED
20. Decremented (--a) integer local variable number 4 → KILLED

266	1. removed call to org/jfree/data/KeyedValues::getValue → KILLED 2. Negated integer local variable number 4 → KILLED 3. Incremented (a++) integer local variable number 4 → KILLED 4. Decremented (a--) integer local variable number 4 → TIMED_OUT 5. Incremented (++a) integer local variable number 4 → KILLED 6. Decremented (--a) integer local variable number 4 → KILLED
267	1. negated conditional → KILLED 2. removed conditional - replaced equality check with false → KILLED 3. removed conditional - replaced equality check with true → SURVIVED 4. equal to not equal → KILLED
268	1. Replaced double addition with subtraction → KILLED 2. removed call to java/lang/Number::doubleValue → KILLED 3. Negated double local variable number 2 → KILLED 4. Replaced double operation with first member → KILLED 5. Replaced double operation by second member → KILLED 6. Replaced double addition with subtraction → KILLED 7. Replaced double addition with multiplication → KILLED 8. Replaced double addition with division → KILLED 9. Replaced double addition with modulus → KILLED 10. Incremented (a++) double local variable number 2 → SURVIVED 11. Decremented (a--) double local variable number 2 → SURVIVED 12. Incremented (++a) double local variable number 2 → KILLED 13. Decremented (--a) double local variable number 2 → KILLED
271	1. Substituted 0.0 with 1.0 → KILLED 2. Substituted 0.0 with 1.0 → KILLED 3. Substituted 0.0 with -1.0 → KILLED 4. Substituted 0.0 with 1.0 → KILLED 5. Substituted 0.0 with -1.0 → KILLED
272	1. changed conditional boundary → KILLED 2. Substituted 0 with 1 → KILLED 3. negated conditional → KILLED 4. removed call to org/jfree/data/KeyedValues::getItemCount → KILLED 5. removed conditional - replaced comparison check with false → KILLED 6. removed conditional - replaced comparison check with true → KILLED 7. Negated integer local variable number 6 → KILLED 8. Substituted 0 with 1 → KILLED 9. Substituted 0 with -1 → KILLED 10. Substituted 0 with 1 → KILLED 11. Substituted 0 with -1 → KILLED 12. Less than to less or equal → KILLED 13. Less than to greater than → KILLED 14. Less than to greater or equal → KILLED 15. Less than to equal → KILLED 16. Less than to not equal → SURVIVED 17. Incremented (a++) integer local variable number 8 → KILLED 18. Decremented (a--) integer local variable number 6 → KILLED 19. Incremented (++a) integer local variable number 8 → KILLED 20. Decremented (--a) integer local variable number 6 → KILLED
273	1. removed call to org/jfree/data/KeyedValues::getValue → KILLED 2. Negated integer local variable number 6 → KILLED 3. Incremented (a++) integer local variable number 8 → KILLED 4. Decremented (a--) integer local variable number 6 → KILLED 5. Incremented (++a) integer local variable number 8 → KILLED 6. Decremented (--a) integer local variable number 6 → KILLED
274	1. negated conditional → KILLED 2. removed conditional - replaced equality check with false → KILLED 3. removed conditional - replaced equality check with true → SURVIVED 4. equal to not equal → KILLED
275	1. Replaced double addition with subtraction → KILLED 2. removed call to java/lang/Number::doubleValue → KILLED 3. Negated double local variable number 4 → KILLED 4. Replaced double operation with first member → KILLED 5. Replaced double operation by second member → KILLED 6. Replaced double addition with subtraction → KILLED 7. Replaced double addition with multiplication → KILLED

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      8. Replaced double addition with division → KILLED
      9. Replaced double addition with modulus → KILLED
     10. Incremented (a++) double local variable number 6 → SURVIVED
     11. Decremented (a--) double local variable number 4 → SURVIVED
     12. Incremented (++a) double local variable number 6 → KILLED
     13. Decremented (--a) double local variable number 4 → KILLED

      1. removed call to java/lang/Double::<init> → KILLED
      2. Replaced double division with multiplication → KILLED
      3. removed call to org/jfree/data/KeyedValues::getKey → KILLED
      4. removed call to org/jfree/data/DefaultKeyedValues::addValue → KILLED
      5. Negated integer local variable number 6 → KILLED
      6. Negated double local variable number 4 → KILLED
      7. Negated double local variable number 2 → KILLED
      8. Replaced double operation with first member → KILLED
      9. Replaced double operation by second member → KILLED
     10. Replaced double division with multiplication → KILLED
     11. Replaced double division with modulus → KILLED
     12. Replaced double division with addition → KILLED
277  13. Replaced double division with subtraction → KILLED
     14. Incremented (a++) integer local variable number 8 → KILLED
     15. Incremented (a++) double local variable number 6 → KILLED
     16. Incremented (a++) double local variable number 2 → KILLED
     17. Decremented (a--) integer local variable number 6 → TIMED_OUT
     18. Decremented (a--) double local variable number 4 → KILLED
     19. Decremented (a--) double local variable number 2 → KILLED
     20. Incremented (++a) integer local variable number 8 → KILLED
     21. Incremented (++a) double local variable number 6 → KILLED
     22. Incremented (++a) double local variable number 2 → KILLED
     23. Decremented (--a) integer local variable number 6 → KILLED
     24. Decremented (--a) double local variable number 4 → KILLED
     25. Decremented (--a) double local variable number 2 → KILLED

      1. replaced return value with null for
      org/jfree/data/DataUtilities::getCumulativePercentages → KILLED
279   2. mutated return of Object value for
      org/jfree/data/DataUtilities::getCumulativePercentages to ( if (x != null) null
      else throw new RuntimeException ) → KILLED
```

Active mutators

- ABS_MUTATOR
- AOD_1_MUTATOR
- AOD_2_MUTATOR
- AOR_1_MUTATOR
- AOR_2_MUTATOR
- AOR_3_MUTATOR
- AOR_4_MUTATOR
- ARGUMENT_PROPAGATION_MUTATOR
- BOOLEAN_FALSE_RETURN
- BOOLEAN_TRUE_RETURN
- CONDITIONALS_BOUNDARY_MUTATOR
- CONSTRUCTOR_CALL_MUTATOR
- CRCR_1_MUTATOR
- CRCR_2_MUTATOR
- CRCR_3_MUTATOR
- CRCR_4_MUTATOR
- CRCR_5_MUTATOR
- CRCR_6_MUTATOR
- EMPTY_RETURN_VALUES
- EXPERIMENTAL_BIGINTEGER_MUTATOR
- EXPERIMENTAL_MEMBER_VARIABLE_MUTATOR
- EXPERIMENTAL_REMOVE_SWITCH_MUTATOR_[0-99]
- EXPERIMENTAL_SWITCH_MUTATOR
- INCREMENTS_MUTATOR
- INLINE_CONSTANT_MUTATOR
- INVERT_NEGS_MUTATOR

- MATH_MUTATOR
- NAKED_RECEIVER
- NEGATE_CONDITIONALS_MUTATOR
- NON_VOID_METHOD_CALL_MUTATOR
- NULL_RETURN_VALUES
- OBBN_1_MUTATOR
- OBBN_2_MUTATOR
- OBBN_3_MUTATOR
- PRIMITIVE_RETURN_VALS_MUTATOR
- REMOVE_CONDITIONALS_EQUAL_ELSE_MUTATOR
- REMOVE_CONDITIONALS_EQUAL_IF_MUTATOR
- REMOVE_CONDITIONALS_ORDER_ELSE_MUTATOR
- REMOVE_CONDITIONALS_ORDER_IF_MUTATOR
- REMOVE_INCREMENTS_MUTATOR
- RETURN_VALS_MUTATOR
- ROR_1_MUTATOR
- ROR_2_MUTATOR
- ROR_3_MUTATOR
- ROR_4_MUTATOR
- ROR_5_MUTATOR
- UOI_1_MUTATOR
- UOI_2_MUTATOR
- UOI_3_MUTATOR
- UOI_4_MUTATOR
- VOID_METHOD_CALL_MUTATOR

Tests examined

- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetRowIndex (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.notEqualFor10By10ArrayTest (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateRowTotalForOneValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateColumnTotalForZeroValues(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalForInequalLengths(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArrayOfSize1 (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.notCloneFor10By10ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalFor1By10ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.getCumulativePercentagesForThreeValues (org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateRowTotalForOneValues(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.calculateColumnTotalForZeroValues (org.jfree.data.testA2.DataUtilitiesTest) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.equalFor1By10ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testCloning2 (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testSerialization (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (4 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateColumnTotalForNegativeValues(org.jfree.data.DataUtilitiesTest_v3) (43 ms)
- org.jfree.data.testA2.DataUtilitiesTest.calculateColumnTotalForOneValues (org.jfree.data.testA2.DataUtilitiesTest) (3 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.getCumulativePercentagesForZeroValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.cloneForNullRowArrayTest (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalFor10By10ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetSeriesCount (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)

- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArray2DFor1By1Array (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArray2DFor10By10Array (org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateColumnTotalForZeroValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetSeriesIndex (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (39 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalForFirstValueNull(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateRowTotalForNullValue(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateColumnTotalForTwoValues(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.equalFor10By10ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateColumnTotalForOneValues(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.cloneFor10By10ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalForSecondValueNull(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateRowTotalForNullValue (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetRowAndColumnCount (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalFor1By1ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.getCumulativePercentagesForZeroValues(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateRowTotalForTwoValues(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetColumnIndex (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetColumnKeys (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateRowTotalForNegativeValues(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testSetSeriesKeys (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalFor1By10ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArrayForNULL(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.DataUtilitiesTest.testCalculateRowTotal(org.jfree.data.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalForBothValuesNull(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetRowKeys (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testEquals (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (34 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArray2DFor10By1Array (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.getCumulativePercentagesForThreeValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest.testEqual(org.jfree.data.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.cloneFor1By1ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArray2DForNULL(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.cloneFor10By1ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateColumnTotalForTwoValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (3 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArrayOfSize1(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.notEqualFor10By10ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.cloneFor10By1ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArray2DFor10By1Array (org.jfree.data.testA2.DataUtilitiesTest) (1 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetValue (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArray2DFor1By1Array(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalFor1By1ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetCategoryIndex (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)

- org.jfree.data.DataUtilitiesTest_v3.calculateRowTotalForZeroValues(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalForInequalLengths(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.cloneFor1By1ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArrayForNULL(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.chart.labels.StandardCategoryItemLabelGeneratorTest.testGenerateLabel (org.jfree.chart.labels.StandardCategoryItemLabelGeneratorTest) (2 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateRowTotalForTwoValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.calculateColumnTotalForTwoValues (org.jfree.data.testA2.DataUtilitiesTest) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateRowTotalForZeroValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.chart.renderer.category.IntervalBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.IntervalBarRendererTest) (0 ms)
- org.jfree.data.DataUtilitiesTest.testCalculateColumnTotal2(org.jfree.data.DataUtilitiesTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.cloneFor10By10ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (3 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetRowCount (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.getCumulativePercentagesForZeroValues (org.jfree.data.testA2.DataUtilitiesTest) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.cloneFor1By1ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateColumnTotalForOneValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArray2DFor10By1Array(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest.testCalculateRowTotal2(org.jfree.data.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.cloneFor10By1ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArrayOfSize10(org.jfree.data.testA2.DataUtilitiesTest) (4 ms)
- org.jfree.data.general.DefaultHeatMapDatasetTest.testSerialization (org.jfree.data.general.DefaultHeatMapDatasetTest) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArrayOfSize10 (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.equalFor10By1ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArrayForNULL (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateColumnTotalForNullValues(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.general.DefaultHeatMapDatasetTest.testEquals(org.jfree.data.general.DefaultHeatMapDatasetTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.cloneFor10By10ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.calculateColumnTotalForNegativeValues (org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArray2DFor1By10Array (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateRowTotalValidColumnsForNullValue (org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalForFirstValueNull(org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest.testClone(org.jfree.data.DataUtilitiesTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalForBothValuesNull(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArrayOfSize10(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.notCloneFor10By10ArrayTest (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArray2DForNULL(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArray2DFor1By1Array (org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateRowTotalForNegativeValues (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testSetCategoryKeys (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.equalFor1By1ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (1 ms)
- org.jfree.data.DataUtilitiesTest.testCreateNumberArray2D(org.jfree.data.DataUtilitiesTest) (0 ms)

- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testCloning
  (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.DataUtilitiesTest.testCalculateColumnTotal(org.jfree.data.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateRowTotalValidColumnsForNullValue
  (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateColumnTotalValidRowsForNullValue
  (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArray2DFor10By10Array(org.jfree.data.DataUtilitiesTest_v3)
  (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.cloneFor1By10ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateColumnTotalForNegativeValues
  (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalFor10By1ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2)
  (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.calculateColumnTotalValidRowsForNullValue
  (org.jfree.data.DataUtilitiesTest_v3) (2 ms)
- org.jfree.data.DataUtilitiesTest_v3.createNumberArray2DFor1By10Array(org.jfree.data.DataUtilitiesTest_v3) (0
  ms)
- org.jfree.chart.renderer.category.IntervalBarRendererTest.testDrawWithNullInfo
  (org.jfree.chart.renderer.category.IntervalBarRendererTest) (14 ms)
- org.jfree.data.general.DefaultHeatMapDatasetTest.testCloning
  (org.jfree.data.general.DefaultHeatMapDatasetTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.equalForSecondValueNull(org.jfree.data.testA3.DataUtilitiesTest_v2)
  (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArrayOfSize1(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.cloneFor1By10ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetColumnCount
  (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalFor10By10ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.calculateColumnTotalForNullValues
  (org.jfree.data.testA3.DataUtilitiesTest_v2) (1 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testSetEndValue
  (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.equalFor10By1ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.getCumulativePercentagesForThreeValues
  (org.jfree.data.DataUtilitiesTest_v3) (10 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testGetCategoryCount
  (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (1 ms)
- org.jfree.data.category.DefaultIntervalCategoryDatasetTest.testSetStartValue
  (org.jfree.data.category.DefaultIntervalCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArray2DFor10By10Array
  (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.DataUtilitiesTest_v3.cloneForNullRowArrayTest(org.jfree.data.DataUtilitiesTest_v3) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.createNumberArray2DForNULL
  (org.jfree.data.testA3.DataUtilitiesTest_v2) (0 ms)
- org.jfree.data.testA3.DataUtilitiesTest_v2.cloneFor1By10ArrayTest(org.jfree.data.testA3.DataUtilitiesTest_v2)
  (1 ms)
- org.jfree.data.DataUtilitiesTest_v3.notCloneFor10By10ArrayTest(org.jfree.data.DataUtilitiesTest_v3) (1 ms)
- org.jfree.data.testA2.DataUtilitiesTest.createNumberArray2DFor1By10Array
  (org.jfree.data.testA2.DataUtilitiesTest) (0 ms)
- org.jfree.data.testA2.DataUtilitiesTest.notEqualFor10By10ArrayTest(org.jfree.data.testA2.DataUtilitiesTest) (1
  ms)

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