## Range.java

```
1
     2
      * JFreeChart : a free chart library for the Java(tm) platform
3
      * -----
4
5
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6
7
      * Project Info: http://www.jfree.org/jfreechart/index.html
8
9
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10
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11
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26
27
      * ______
28
      * Range.java
29
30
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31
32
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33
      * Contributor(s):
                         Chuanhao Chiu;
34
                         Bill Kelemen;
35
                         Nicolas Brodu;
36
                         Sergei Ivanov;
37
38
      * Changes (from 23-Jun-2001)
39
      * ______
      * 22-Apr-2002 : Version 1, loosely based by code by Bill Kelemen (DG);
40
41
      * 30-Apr-2002 : Added getLength() and getCentralValue() methods. Changed
42
                     argument check in constructor (DG);
43
      * 13-Jun-2002 : Added contains(double) method (DG);
44
      * 22-Aug-2002 : Added fix to combine method where both ranges are null, thanks
45
                     to Chuanhao Chiu for reporting and fixing this (DG);
46
      * 07-Oct-2002 : Fixed errors reported by Checkstyle (DG);
47
      * 26-Mar-2003 : Implemented Serializable (DG);
48
      * 14-Aug-2003 : Added equals() method (DG);
49
      * 27-Aug-2003 : Added toString() method (BK);
```

```
50
       * 11-Sep-2003 : Added Clone Support (NB);
51
       * 23-Sep-2003 : Fixed Checkstyle issues (DG);
52
       * 25-Sep-2003 : Oops, Range immutable, clone not necessary (NB);
53
       * 05-May-2004 : Added constrain() and intersects() methods (DG);
54
       * 18-May-2004 : Added expand() method (DG);
55
       * ----- JFreeChart 1.0.x -----
56
       * 11-Jan-2006 : Added new method expandToInclude(Range, double) (DG);
57
       * 18-Dec-2007 : New methods intersects(Range) and scale(...) thanks to Sergei
58
                       Ivanov (DG);
59
       * 08-Jan-2012 : New method combineIgnoringNaN() (DG);
60
       * 23-Feb-2014 : Added isNaNRange() method (DG);
61
62
       */
63
      package org.jfree.data;
64
65
66
      import java.io.Serializable;
67
      import org.jfree.chart.util.ParamChecks;
68
69
      /**
       * Represents an immutable range of values.
70
71
72
      public strictfp class Range implements Serializable {
73
74
          /** For serialization. */
75
          private static final long serialVersionUID = -906333695431863380L;
76
77
          /** The lower bound of the range. */
78
          private double lower;
79
          /** The upper bound of the range. */
80
81
          private double upper;
82
          /**
83
84
           * Creates a new range.
85
           * @param lower the lower bound (must be <= upper bound).
86
87
           * @param upper the upper bound (must be >= lower bound).
88
89
          public Range(double lower, double upper) {
90 19
              if (lower > upper) {
91 <u>9</u>
                  String msg = "Range(double, double): require lower (" + lower
                      + ") <= upper (" + upper + ").";
92 11
93 <u>1</u>
                  throw new IllegalArgumentException(msg);
94
              }
95 <u>6</u>
              this.lower = lower;
              this.upper = upper;
96 6
97
          }
98
          /**
99
100
           * Returns the lower bound for the range.
101
102
           * @return The lower bound.
```

```
103
           */
          public double getLowerBound() {
104
105 7
              return this.lower;
106
          }
107
          /**
108
109
           * Returns the upper bound for the range.
110
           * @return The upper bound.
111
112
113
          public double getUpperBound() {
              return this.upper;
114 7
115
          }
116
          /**
117
118
           * Returns the length of the range.
119
           * @return The length.
120
121
122
          public double getLength() {
123 19
              return this.upper - this.lower;
124
          }
125
          /**
126
           * Returns the central value for the range.
127
128
129
           * @return The central value.
           */
130
          public double getCentralValue() {
131
              return this.lower / 2.0 + this.upper / 2.0;
132 <del>47</del>
133
          }
134
          /**
135
           * Returns <code>true</code> if the range contains the specified value and
136
           * <code>false</code> otherwise.
137
138
           * @param value the value to lookup.
139
140
141
           * @return <code>true</code> if the range contains the specified value.
           */
142
143
          public boolean contains(double value) {
144 53
              return (value >= this.lower && value <= this.upper);</pre>
145
          }
146
          /**
147
148
           * Returns <code>true</code> if the range intersects with the specified
           * range, and <code>false</code> otherwise.
149
150
151
           * @param b0 the lower bound (should be <= b1).
152
           * @param b1 the upper bound (should be > = b0).
153
           * @return A boolean.
154
           */
155
```

```
156
          public boolean intersects(double b0, double b1) {
              if (b0 <= this.lower) {</pre>
157 19
158 34
                  return (b1 > this.lower);
159
              }
160
              else {
                  return (b0 < this.upper && b1 >= b0);
161 53
              }
162
          }
163
164
          /**
165
166
           * Returns <code>true</code> if the range intersects with the specified
           * range, and <code>false</code> otherwise.
167
168
           * @param range another range (<code>null</code> not permitted).
169
170
171
           * @return A boolean.
172
173
           * @since 1.0.9
174
           */
175
          public boolean intersects(Range range) {
176 6
              return intersects(range.getLowerBound(), range.getUpperBound());
177
          }
178
          /**
179
180
           * Returns the value within the range that is closest to the specified
181
           * value.
182
           * @param value the value.
183
184
           * @return The constrained value.
185
186
          public double constrain(double value) {
187
188 <del>5</del>
              double result = value;
              if (!contains(value)) {
189 14
                  if (value > this.upper) {
190 <del>19</del>
                      result = this.upper;
191 5
192
193 19
                  else if (value < this.lower) {</pre>
194 5
                      result = this.lower;
195
                  }
196
              }
197 7
              return result;
198
          }
199
          /**
200
201
           * Creates a new range by combining two existing ranges.
202
           * <P>
           * Note that:
203
204
           * 
205
               <ii>>either range can be <code>null</code>, in which case the other
206
                    range is returned;
207
               if both ranges are <code>null</code> the return value is
208
                   <code>null</code>.
```

```
* 
209
210
           * @param range1 the first range (<code>null</code> permitted).
211
212
           * @param range2 the second range (<code>null</code> permitted).
213
214
           * @return A new range (possibly <code>null</code>).
215
216
          public static Range combine(Range range1, Range range2) {
217 4
              if (range1 == null) {
218 <sup>2</sup>
                   return range2;
219
              }
220 4
              if (range2 == null) {
221 2
                   return range1;
222
              double 1 = Math.min(range1.getLowerBound(), range2.getLowerBound());
223 4
224 4
              double u = Math.max(range1.getUpperBound()), range2.getUpperBound());
              return new Range(1, u);
225 13
226
          }
227
228
          /**
229
           * Returns a new range that spans both <code>range1</code> and
230
           * <code>range2</code>. This method has a special handling to ignore
231
           * Double.NaN values.
232
233
           * @param range1 the first range (<code>null</code> permitted).
234
           * @param range2 the second range (<code>null</code> permitted).
235
           * @return A new range (possibly <code>null</code>).
236
237
           * @since 1.0.15
238
239
          public static Range combineIgnoringNaN(Range range1, Range range2) {
240
241 4
              if (range1 == null) {
                   if (range2 != null && range2.isNaNRange()) {
242 13
243 1
                       return null;
244
245 2
                   return range2;
246
              }
247 4
              if (range2 == null) {
                   if (range1.isNaNRange()) {
248 9
249 <u>1</u>
                       return null;
250
                   }
251 <sup>2</sup>
                   return range1;
252
253 4
              double 1 = min(range1.getLowerBound(), range2.getLowerBound());
254 <u>4</u>
              double u = max(range1.getUpperBound(), range2.getUpperBound());
              if (Double.isNaN(1) && Double.isNaN(u)) {
255 28
256 <u>1</u>
                   return null;
257
              return new Range(1, u);
258 <u>13</u>
259
          }
260
          /**
261
```

```
262
           * Returns the minimum value. If either value is NaN, the other value is
263
           * returned. If both are NaN, NaN is returned.
264
           * @param d1 value 1.
265
           * @param d2 value 2.
266
267
268
           * @return The minimum of the two values.
269
          private static double min(double d1, double d2) {
270
271 14
              if (Double.isNaN(d1)) {
272 7
                   return d2;
273
              if (Double.isNaN(d2)) {
274 14
275 <u>7</u>
                   return d1;
276
              }
277 14
              return Math.min(d1, d2);
          }
278
279
280
          private static double max(double d1, double d2) {
281 14
              if (Double.isNaN(d1)) {
282 7
                   return d2;
283
              if (Double.isNaN(d2)) {
284 14
285 7
                   return d1;
286
              }
287 14
              return Math.max(d1, d2);
288
          }
289
290
          /**
291
           * Returns a range that includes all the values in the specified
292
           * <code>range</code> AND the specified <code>value</code>.
293
294
           * @param range the range (<code>null</code> permitted).
295
           * @param value the value that must be included.
296
297
           * @return A range.
298
           * @since 1.0.1
299
300
          public static Range expandToInclude(Range range, double value) {
301
302 4
              if (range == null) {
303 13
                   return new Range(value, value);
304
              if (value < range.getLowerBound()) {</pre>
305 15
306 9
                   return new Range(value, range.getUpperBound());
307
              else if (value > range.getUpperBound()) {
308 15
309 9
                   return new Range(range.getLowerBound(), value);
310
              }
              else {
311
312 <sup>2</sup>
                   return range;
              }
313
314
          }
```

```
315
          /**
316
           * Creates a new range by adding margins to an existing range.
317
318
           * @param range the range (<code>null</code> not permitted).
319
           * @param lowerMargin the lower margin (expressed as a percentage of the
320
321
                                  range length).
322
           * @param upperMargin the upper margin (expressed as a percentage of the
323
                                  range length).
324
           * @return The expanded range.
325
           */
326
327
          public static Range expand(Range range,
328
                                      double lowerMargin, double upperMargin) {
              ParamChecks.nullNotPermitted(range, "range");
329 1
330 1
              double length = range.getLength();
331 <u>25</u>
              double lower = range.getLowerBound() - length * lowerMargin;
              double upper = range.getUpperBound() + length * upperMargin;
332 25
333 19
              if (lower > upper) {
334 45
                  lower = lower / 2.0 + upper / 2.0;
335 5
                  upper = lower;
336
              return new Range(lower, upper);
337 13
338
          }
339
340
          /**
341
           * Shifts the range by the specified amount.
342
           * @param base the base range (<code>null</code> not permitted).
343
           * @param delta the shift amount.
344
345
346
           * @return A new range.
           */
347
348
          public static Range shift(Range base, double delta) {
              return shift(base, delta, false);
349 14
350
          }
351
          /**
352
353
           * Shifts the range by the specified amount.
354
355
           * @param base the base range (<code>null</code> not permitted).
356
           * @param delta the shift amount.
357
           * @param allowZeroCrossing a flag that determines whether or not the
358
                                        bounds of the range are allowed to cross
359
                                        zero after adjustment.
360
361
           * @return A new range.
           */
362
363
          public static Range shift(Range base, double delta,
364
                                     boolean allowZeroCrossing) {
365 1
              ParamChecks.nullNotPermitted(base, "base");
              if (allowZeroCrossing) {
366 <u>13</u>
367 <u>16</u>
                  return new Range(base.getLowerBound() + delta,
```

```
368 13
                           base.getUpperBound() + delta);
369
              }
370
              else {
                   return new Range(shiftWithNoZeroCrossing(base.getLowerBound(),
371 <u>6</u>
3728
                           delta), shiftWithNoZeroCrossing(base.getUpperBound(),
                           delta));
373 5
374
              }
375
          }
376
377
          /**
378
           * Returns the given <code>value</code> adjusted by <code>delta</code> but
           * with a check to prevent the result from crossing <code>0.0</code>.
379
380
381
           * @param value the value.
           * @param delta the adjustment.
382
383
           * @return The adjusted value.
384
385
386
          private static double shiftWithNoZeroCrossing(double value, double delta) {
387 19
              if (value > 0.0) {
388 26
                   return Math.max(value + delta, 0.0);
389
390 <u>19</u>
              else if (value < 0.0) {
391 26
                   return Math.min(value + delta, 0.0);
392
              }
393
              else {
394 19
                   return value + delta;
              }
395
396
          }
397
          /**
398
399
           * Scales the range by the specified factor.
400
           * @param base the base range (<code>null</code> not permitted).
401
           * @param factor the scaling factor (must be non-negative).
402
403
           * @return A new range.
404
405
406
           * @since 1.0.9
           */
407
408
          public static Range scale(Range base, double factor) {
409 1
              ParamChecks.nullNotPermitted(base, "base");
410 <del>19</del>
              if (factor < 0) {</pre>
                   throw new IllegalArgumentException("Negative 'factor' argument.");
411 1
412
              }
413 <u>16</u>
              return new Range(base.getLowerBound() * factor,
                       base.getUpperBound() * factor);
414 13
415
          }
416
          /**
417
418
           * Tests this object for equality with an arbitrary object.
419
           * @param obj the object to test against (<code>null</code> permitted).
420
```

```
421
422
            * @return A boolean.
           */
423
424
          @Override
425
          public boolean equals(Object obj) {
4268
               if (!(obj instanceof Range)) {
427 <u>7</u>
                   return false;
428
               }
429
              Range range = (Range) obj;
430 18
               if (!(this.lower == range.lower)) {
431 <u>7</u>
                   return false;
432
              if (!(this.upper == range.upper)) {
433 18
434 <u>7</u>
                   return false;
435
               }
4368
              return true;
437
          }
438
439
          /**
440
           * Returns <code>true</code> if both the lower and upper bounds are
441
           * <code>Double.NaN</code>, and <code>false</code> otherwise.
442
           * @return A boolean.
443
444
445
           * @since 1.0.18
446
447
          public boolean isNaNRange() {
               return Double.isNaN(this.lower) && Double.isNaN(this.upper);
448 43
449
          }
450
          /**
451
452
           * Returns a hash code.
453
454
           * @return A hash code.
           */
455
456
          @Override
          public int hashCode() {
457
458
              int result;
459
               long temp;
460 6
              temp = Double.doubleToLongBits(this.lower);
461 <u>19</u>
               result = (int) (temp ^ (temp >>> 32));
462 <u>6</u>
              temp = Double.doubleToLongBits(this.upper);
               result = 29 * result + (int) (temp ^ (temp >>> 32));
463 45
464 7
              return result;
465
          }
466
          /**
467
468
           * Returns a string representation of this Range.
469
470
           * @return A String "Range[lower,upper]" where lower=lower range and
471
                      upper=upper range.
472
           */
473
          @Override
```

```
474
          public String toString() {
475 <u>22</u>
               return ("Range[" + this.lower + "," + this.upper + "]");
476
477
478
      }
      Mutations

    changed conditional boundary → KILLED

      negated conditional → KILLED

    removed conditional - replaced comparison check with false → KILLED

      4. removed conditional - replaced comparison check with true → KILLED
      5. Negated double local variable number 1 → KILLED
      6. Negated double local variable number 3 → KILLED
      Less or equal to less than → KILLED
      Less or equal to greater than → KILLED
      9. Less or equal to greater or equal → KILLED
90
      Less or equal to equal → KILLED
      11. Less or equal to not equal → KILLED
      12. Incremented (a++) double local variable number 1 \rightarrow KILLED 13. Incremented (a++) double local variable number 3 \rightarrow KILLED
      14. Decremented (a--) double local variable number 1 → KILLED
      15. Decremented (a--) double local variable number 3 → KILLED
      16. Incremented (++a) double local variable number 1 → KILLED
      17. Incremented (++a) double local variable number 3 → KILLED
      18. Decremented (--a) double local variable number 1 → KILLED
      19. Decremented (--a) double local variable number 3 → KILLED

    removed call to java/lang/StringBuilder::<init> → SURVIVED

      removed call to java/lang/StringBuilder::append → SURVIVED

    removed call to java/lang/StringBuilder::toString → SURVIVED

      4. replaced call to java/lang/StringBuilder::append with receiver → SURVIVED
91
      5. Negated double local variable number 1 → SURVIVED

    Incremented (a++) double local variable number 1 → SURVIVED

    Decremented (a--) double local variable number 1 → SURVIVED

      8. Incremented (++a) double local variable number 1 → SURVIVED
      9. Decremented (--a) double local variable number 1 → SURVIVED

    removed call to java/lang/StringBuilder::append → SURVIVED

      removed call to java/lang/StringBuilder::append → SURVIVED
      removed call to java/lang/StringBuilder::append → SURVIVED
      4. replaced call to java/lang/StringBuilder::append with receiver → SURVIVED
      5. replaced call to java/lang/StringBuilder::append with receiver → SURVIVED
92
      6. replaced call to java/lang/StringBuilder::append with receiver → SURVIVED
      7. Negated double local variable number 3 → SURVIVED

 Incremented (a++) double local variable number 3 → SURVIVED

      9. Decremented (a--) double local variable number 3 → SURVIVED
      10. Incremented (++a) double local variable number 3 → SURVIVED11. Decremented (--a) double local variable number 3 → SURVIVED
93

    removed call to java/lang/IllegalArgumentException::<init> → SURVIVED

      1. Removed assignment to member variable lower → KILLED

    Negated double local variable number 1 → KILLED

      3. Incremented (a++) double local variable number 1 → SURVIVED
95
      4. Decremented (a--) double local variable number 1 → SURVIVED
      5. Incremented (++a) double local variable number 1 → KILLED
      6. Decremented (--a) double local variable number 1 \rightarrow KILLED
      1. Removed assignment to member variable upper → KILLED

    Negated double local variable number 3 → KILLED

    Incremented (a++) double local variable number 3 → SURVIVED

96
      4. Decremented (a--) double local variable number 3 → SURVIVED

    Incremented (++a) double local variable number 3 → KILLED

    Decremented (--a) double local variable number 3 → KILLED

    replaced double return with 0.0d for org/jfree/data/Range::getLowerBound →

105
      KILLED
```

```
2. replaced return of double value with -(x + 1) for
      org/jfree/data/Range::getLowerBound → KILLED

 Negated double field lower → KILLED

    Incremented (a++) double field lower → KILLED

    5. Decremented (a--) double field lower → KILLED
    6. Incremented (++a) double field lower → KILLED
    7. Decremented (--a) double fieldlower → KILLED

    replaced double return with 0.0d for org/jfree/data/Range::getUpperBound →

      KILLED
      2. replaced return of double value with -(x + 1) for
      org/jfree/data/Range::getUpperBound → KILLED
114
      Negated double field upper → KILLED

    4. Incremented (a++) double field upper → KILLED
    5. Decremented (a--) double field upper → KILLED
    6. Incremented (++a) double field upper → KILLED

      7. Decremented (--a) double fieldupper → KILLED

    Replaced double subtraction with addition → KILLED

      replaced double return with 0.0d for org/jfree/data/Range::getLength →
      KILLED
      3. replaced return of double value with -(x + 1) for
      org/jfree/data/Range::getLength → KILLED
      4. Negated double field upper → KILLED
      5. Negated double field lower → KILLED
      6. Replaced double operation with first member → KILLED

    Replaced double operation by second member → KILLED

      8. Replaced double subtraction with addition → KILLED
123
      9. Replaced double subtraction with multiplication → KILLED

    Replaced double subtraction with division → KILLED

    Replaced double subtraction with modulus → KILLED

      12. Incremented (a++) double field upper → KILLED
      13. Incremented (a++) double field lower → KILLED
      14. Decremented (a--) double field upper → KILLED
      15. Decremented (a--) double field lower \rightarrow KILLED
      16. Incremented (++a) double field upper → KILLED 17. Incremented (++a) double field lower → KILLED 18. Decremented (--a) double fieldupper → KILLED
      19. Decremented (--a) double fieldlower → KILLED
      1. Substituted 2.0 with 1.0 → KILLED
132
      Substituted 2.0 with 1.0 → KILLED
      3. Replaced double division with multiplication \rightarrow KILLED

    Replaced double division with multiplication → KILLED

      Replaced double addition with subtraction → KILLED
      6. replaced double return with 0.0d for org/jfree/data/Range::getCentralValue →
      KILLED
      7. replaced return of double value with -(x + 1) for
      org/jfree/data/Range::getCentralValue → KILLED
      8. Negated double field lower → KILLED
      Negated double field upper → KILLED

    Replaced double operation with first member → KILLED

    Replaced double operation with first member → KILLED

      12. Replaced double operation with first member → KILLED
      13. Replaced double operation by second member → KILLED
      14. Replaced double operation by second member \rightarrow KILLED

    Replaced double operation by second member → KILLED

      16. Replaced double division with multiplication → KILLED
      17. Replaced double division with multiplication → KILLED
      18. Replaced double addition with subtraction → KILLED
      19. Replaced double division with modulus → KILLED

 Replaced double division with modulus → KILLED

      21. Replaced double addition with multiplication → KILLED
      22. Replaced double division with addition → KILLED
      23. Replaced double division with addition → KILLED
      24. Replaced double addition with division → KILLED
      25. Replaced double division with subtraction → KILLED
      26. Replaced double division with subtraction → KILLED
      27. Replaced double addition with modulus → KILLED
```

```
28. Substituted 2.0 with 1.0 → KILLED
      29. Substituted 2.0 with 1.0 → KILLED
      30. Substituted 2.0 with 0.0 → KILLED
      31. Substituted 2.0 with 0.0 → KILLED
      32. Substituted 2.0 with -1.0 → KILLED
      33. Substituted 2.0 with -1.0 → KILLED 34. Substituted 2.0 with -2.0 → KILLED
      35. Substituted 2.0 with -2.0 → KILLED
      36. Substituted 2.0 with 3.0 → KILLED
      37. Substituted 2.0 with 3.0 → KILLED
      38. Substituted 2.0 with 1.0 → KILLED
      39. Substituted 2.0 with 1.0 → KILLED
      40. Incremented (a++) double field lower → SURVIVED
      41. Incremented (a++) double field upper → SURVIVED
      42. Decremented (a--) double field lower → SURVIVED
      43. Decremented (a--) double field upper → SURVIVED
      44. Incremented (++a) double field lower → KILLED
      45. Incremented (++a) double field upper → KILLED
      46. Decremented (--a) double fieldlower → KILLED
      47. Decremented (--a) double fieldupper → KILLED
144

    replaced boolean return with false for org/jfree/data/Range::contains →

      KILLED
      replaced boolean return with true for org/jfree/data/Range::contains →
      KILLED
      changed conditional boundary → KILLED
      4. changed conditional boundary → KILLED
      5. Substituted 1 with 0 → KILLED
      Substituted 0 with 1 → KILLED

 negated conditional → KILLED

      negated conditional → KILLED
      9. removed conditional - replaced comparison check with false \rightarrow KILLED
      10. removed conditional - replaced comparison check with false 
ightarrow KILLED
      11. removed conditional - replaced comparison check with true \rightarrow KILLED
      12. removed conditional - replaced comparison check with true 
ightarrow KILLED
      13. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
      14. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
      15. Negated double local variable number 1 → KILLED
      16. Negated double field lower → KILLED
      17. Negated double local variable number 1 → KILLED
      18. Negated double field upper → KILLED
      19. Substituted 0 with 1 → KILLED
      20. Substituted 1 with 0 → KILLED
      21. Substituted 1 with -1 → SURVIVED
      22. Substituted 0 with -1 → KILLED
      23. Substituted 1 with -1 → SURVIVED
      24. Substituted 1 with 2 → KILLED
      25. Substituted 0 with 1 → KILLED
      26. Substituted 1 with 0 → KILLED
      27. Substituted 0 with -1 → KILLED
      28. Less than to less or equal → KILLED
      29. greater than to less than → KILLED
      30. Less than to greater than → KILLED
      31. greater than to less or equal → KILLED
      32. Less than to greater or equal \rightarrow KILLED
      33. greater than to greater or equal → KILLED
      34. Less than to equal → KILLED
      35. greater than to equal → KILLED
      36. Less than to not equal → KILLED
      37. greater than to not equal → KILLED
      38. Incremented (a++) double local variable number 1 → KILLED
      39. Incremented (a++) double field lower → KILLED
      40. Incremented (a++) double local variable number 1 → SURVIVED
      41. Incremented (a++) double field upper → KILLED
      42. Decremented (a--) double local variable number 1 → KILLED
      43. Decremented (a--) double field lower → KILLED
      44. Decremented (a--) double local variable number 1 	o SURVIVED
```

```
45. Decremented (a--) double field upper → KILLED
      46. Incremented (++a) double local variable number 1 → KILLED
      47. Incremented (++a) double field lower → KILLED
      48. Incremented (++a) double local variable number 1 → KILLED
       49. Incremented (++a) double field upper → KILLED
      50. Decremented (--a) double local variable number 1 → KILLED 51. Decremented (--a) double fieldlower → KILLED 52. Decremented (--a) double local variable number 1 → KILLED
       53. Decremented (--a) double fieldupper → KILLED

    changed conditional boundary → SURVIVED

       2. negated conditional → KILLED
       3. removed conditional - replaced comparison check with false \rightarrow KILLED
       4. removed conditional - replaced comparison check with true → KILLED
      5. Negated double local variable number 1 → KILLED6. Negated double field lower → KILLED
      7. greater than to less than → KILLED
       8. greater than to less or equal → KILLED
      9. greater than to greater or equal \rightarrow SURVIVED
      10. greater than to equal → KILLED
157

 greater than to not equal → KILLED

       12. Incremented (a++) double local variable number 1 \rightarrow KILLED
       13. Incremented (a++) double field lower → KILLED
       14. Decremented (a--) double local variable number 1 → KILLED
       15. Decremented (a--) double field lower → KILLED
       16. Incremented (++a) double local variable number 1 → KILLED
       17. Incremented (++a) double field lower → KILLED

    Decremented (--a) double local variable number
    Decremented (--a) double fieldlower → KILLED

                          [--a) double local variable number 1 → KILLED

    replaced boolean return with false for org/jfree/data/Range::intersects →

      KILLED
       replaced boolean return with true for org/jfree/data/Range::intersects →
      KILLED
       changed conditional boundary → KILLED
       4. Substituted 1 with 0 → KILLED
       Substituted 0 with 1 → KILLED
       6. negated conditional → KILLED
      7. removed conditional - replaced comparison check with false \rightarrow KILLED 8. removed conditional - replaced comparison check with true \rightarrow KILLED
      9. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
       10. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
       11. Negated double local variable number 3 → KILLED
       12. Negated double field lower → KILLED
       13. Substituted 0 with 1 → KILLED
       14. Substituted 1 with 0 → KILLED
       15. Substituted 1 with -1 → SURVIVED
      16. Substituted 0 with -1 → KILLED
158
       17. Substituted 1 with -1 \rightarrow SURVIVED
       18. Substituted 1 with 2 → KILLED
       19. Substituted 0 with 1 → KILLED
       20. Substituted 1 with 0 → KILLED
       21. Substituted 0 with -1 → KILLED
       22. Less or equal to less than → KILLED
       23. Less or equal to greater than → KILLED
       24. Less or equal to greater or equal → KILLED
       25. Less or equal to equal → KILLED
       26. Less or equal to not equal → KILLED
       27. Incremented (a++) double local variable number 3 → SURVIVED
       28. Incremented (a++) double field lower → KILLED
       29. Decremented (a--) double local variable number 3 → SURVIVED
       30. Decremented (a--) double field lower → KILLED
       31. Incremented (++a) double local variable number 3 → KILLED
       32. Incremented (++a) double field lower → KILLED
      33. Decremented (--a) double local variable number 3 → KILLED 34. Decremented (--a) double fieldlower → KILLED
161

    replaced boolean return with false for org/jfree/data/Range::intersects →

      KILLED
```

```
replaced boolean return with true for org/jfree/data/Range::intersects →
      KILLED
      changed conditional boundary → KILLED

    changed conditional boundary → SURVIVED

      5. Substituted 1 with 0 → KILLED
      Substituted 0 with 1 → KILLED

 negated conditional → KILLED

      negated conditional → KILLED
      9. removed conditional - replaced comparison check with false → KILLED
      10. removed conditional - replaced comparison check with false → KILLED
      11. removed conditional - replaced comparison check with true \rightarrow KILLED
      12. removed conditional - replaced comparison check with true 
ightarrow SURVIVED
      13. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
      14. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
      15. Negated double local variable number 1 → KILLED
      16. Negated double field upper → KILLED
      17. Negated double local variable number 3 → KILLED
      18. Negated double local variable number 1 → SURVIVED
      19. Substituted 0 with 1 → KILLED
      20. Substituted 1 with 0 → KILLED
      21. Substituted 1 with -1 → SURVIVED
      22. Substituted 0 with -1 → KILLED
      23. Substituted 1 with -1 → SURVIVED
      24. Substituted 1 with 2 → KILLED
      25. Substituted 0 with 1 → KILLED
      26. Substituted 1 with 0 → KILLED
      27. Substituted 0 with -1 → KILLED
      28. greater or equal to less than → KILLED
      29. Less than to less or equal → SURVIVED
      30. greater or equal to less or equal → KILLED
      31. Less than to greater than → KILLED
      32. greater or equal to greater than → KILLED
      33. Less than to greater or equal → KILLED
      34. greater or equal to equal → KILLED
      35. Less than to equal → SURVIVED
      36. greater or equal to not equal → KILLED
      37. Less than to not equal → KILLED
      38. Incremented (a++) double local variable number 1 → KILLED 39. Incremented (a++) double field upper → KILLED
      40. Incremented (a++) double local variable number 3 → SURVIVED
      41. Incremented (a++) double local variable number 1 → SURVIVED
      42. Decremented (a--) double local variable number 1 → SURVIVED
      43. Decremented (a--) double field upper → KILLED
      44. Decremented (a--) double local variable number 3 → SURVIVED
      45. Decremented (a--) double local variable number 1 → SURVIVED
      46. Incremented (++a) double local variable number 1 → KILLED
      47. Incremented (++a) double field upper → KILLED
      48. Incremented (++a) double local variable number 3 → SURVIVED
      49. Incremented (++a) double local variable number 1 → KILLED
      50. Decremented (--a) double local variable number 1 → KILLED
      51. Decremented (--a) double fieldupper → KILLED
      52. Decremented (--a) double local variable number 3 → KILLED
      53. Decremented (--a) double local variable number 1 → SURVIVED

    replaced boolean return with false for org/jfree/data/Range::intersects →

      KILLED
      replaced boolean return with true for org/jfree/data/Range::intersects →
      SURVIVED
176
      3. removed call to org/jfree/data/Range::getLowerBound → SURVIVED
4. removed call to org/jfree/data/Range::getUpperBound → KILLED
5. removed call to org/jfree/data/Range::intersects → KILLED
      6. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
      1. Negated double local variable number 1 → KILLED

    Incremented (a++) double local variable number 1 → KILLED

    Decremented (a--) double local variable number 1 → KILLED
    Incremented (++a) double local variable number 1 → KILLED
    Decremented (--a) double local variable number 1 → KILLED
```

```
189
       1. negated conditional → KILLED
       2. removed call to org/jfree/data/Range::contains → SURVIVED
       3. removed conditional - replaced equality check with false \rightarrow KILLED
       4. removed conditional - replaced equality check with true → SURVIVED
       5. Negated double local variable number 1 → KILLED
       6. not equal to less than → SURVIVED

 not equal to less or equal → KILLED

       8. not equal to greater than → SURVIVED
       9. not equal to greater or equal → KILLED
       10. not equal to equal → KILLED
       11. Incremented (a++) double local variable number 1 → KILLED
       12. Decremented (a--) double local variable number 1 → KILLED
       13. Incremented (++a) double local variable number 1 \rightarrow KILLED
       14. Decremented (--a) double local variable number 1 → KILLED

    changed conditional boundary → SURVIVED

       negated conditional → KILLED

    removed conditional - replaced comparison check with false → KILLED

       4. removed conditional - replaced comparison check with true \rightarrow KILLED
       5. Negated double local variable number 1 → KILLED
       6. Negated double field upper → KILLED
       Less or equal to less than → SURVIVED
       Less or equal to greater than → KILLED
       9. Less or equal to \bar{g} reater or equal \rightarrow KILLED
190
       10. Less or equal to equal → KILLED
       11. Less or equal to not equal → KILLED
       12. Incremented (a++) double local variable number 1 \rightarrow KILLED
       13. Incremented (a++) double field upper → KILLED
14. Decremented (a--) double local variable number 1 → SURVIVED
15. Decremented (a--) double field upper → KILLED
16. Incremented (++a) double local variable number 1 → KILLED
       17. Incremented (++a) double field upper → KILLED
       18. Decremented (--a) double local variable number 1 → KILLED
       19. Decremented (--a) double fieldupper → KILLED

    Negated double field upper → KILLED

    Incremented (a++) double field upper → KILLED
    Decremented (a--) double field upper → KILLED
    Incremented (++a) double field upper → KILLED
    Decremented (--a) double fieldupper → KILLED

191

    changed conditional boundary → SURVIVED

       negated conditional → KILLED
       3. removed conditional - replaced comparison check with false \rightarrow KILLED
       4. removed conditional - replaced comparison check with true → KILLED
       5. Negated double local variable number 1 → KILLED
       6. Negated double field lower → 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
193
       10. greater or equal to equal → KILLED
       11. greater or equal to not equal → KILLED
       12. Incremented (a++) double local variable number 1 \rightarrow SURVIVED
       13. Incremented (a++) double field lower → KILLED
       14. Decremented (a--) double local variable number 1 → SURVIVED
       15. Decremented (a--) double field lower → KILLED
       16. Incremented (++a) double local variable number 1 \rightarrow KILLED
       17. Incremented (++a) double field lower → KILLED
18. Decremented (--a) double local variable number 1 → SURVIVED
19. Decremented (--a) double fieldlower → KILLED

    Negated double field lower → KILLED

    Incremented (a++) double field lower → KILLED

       3. Decremented (a--) double field lower \rightarrow KILLED
194

    Incremented (++a) double field lower → KILLED
    Decremented (--a) double fieldlower → KILLED

       1. replaced double return with 0.0d for org/jfree/data/Range::constrain →
197
       KILLED
```

```
2. replaced return of double value with -(x + 1) for
       org/jfree/data/Range::constrain → KILLED

 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

    negated conditional → KILLED

       removed conditional - replaced equality check with false → KILLED
<u>217</u>
       3. removed conditional - replaced equality check with true → KILLED
      4. not equal to equal → KILLED

    replaced return value with null for org/jfree/data/Range::combine → KILLED

218
       mutated return of Object value for org/jfree/data/Range::combine to ( if
       (x != null) null else throw new RuntimeException ) \rightarrow KILLED

    negated conditional → KILLED

      2. removed conditional - replaced equality check with false \rightarrow KILLED 3. removed conditional - replaced equality check with true \rightarrow KILLED
220
       4. not equal to equal → KILLED

    replaced return value with null for org/jfree/data/Range::combine → KILLED

       2. mutated return of Object value for org/jfree/data/Range::combine to ( if
221
       (x != null) null else throw new RuntimeException ) → KILLED

    replaced call to java/lang/Math::min with argument → KILLED

    removed call to org/jfree/data/Range::getLowerBound → KILLED

223
       3. removed call to org/jfree/data/Range::getLowerBound → KILLED
       4. removed call to java/lang/Math::min → KILLED

    replaced call to java/lang/Math::max with argument → KILLED

       removed call to org/jfree/data/Range::getUpperBound → KILLED
224
       3. removed call to org/jfree/data/Range::getUpperBound → KILLED
      4. removed call to java/lang/Math::max → KILLED

    removed call to org/jfree/data/Range::<init> → KILLED

       replaced return value with null for org/jfree/data/Range::combine → KILLED
       mutated return of Object value for org/jfree/data/Range::combine to ( if
       (x != null) null else throw new RuntimeException ) → KILLED

    Negated double local variable number 2 → KILLED

    Negated double local variable number 4 → KILLED

      6. Incremented (a++) double local variable number 2 → SURVIVED
225
      7. Incremented (a++) double local variable number 4 \rightarrow SURVIVED
       8. Decremented (a--) double local variable number 2 → SURVIVED
       9. Decremented (a--) double local variable number 4 → SURVIVED
      10. Incremented (++a) double local variable number 2 → KILLED 11. Incremented (++a) double local variable number 4 → KILLED 12. Decremented (--a) double local variable number 2 → KILLED 13. Decremented (--a) double local variable number 4 → KILLED

    negated conditional → KILLED

       2. removed conditional - replaced equality check with false \rightarrow KILLED
241
       3. removed conditional - replaced equality check with true \rightarrow KILLED
      not equal to equal → KILLED

    negated conditional → KILLED

       negated conditional → KILLED
       3. removed call to org/jfree/data/Range::isNaNRange → KILLED
       4. removed conditional - replaced equality check with false → KILLED
       5. removed conditional - replaced equality check with false → KILLED
      6. removed conditional - replaced equality check with true → KILLED
242
       7. removed conditional - replaced equality check with true 
ightarrow KILLED
       equal to less than → KILLED
       equal to less or equal → SURVIVED
       10. equal to greater than → KILLED
       11. equal to greater or equal → KILLED
       12. equal to not equal → KILLED
      13. equal to not equal → KILLED

    mutated return of Object value for org/jfree/data/Range::combineIgnoringNaN

243
      to ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED
245

    replaced return value with null for org/jfree/data/Range::combineIgnoringNaN

      → KILLED
```

```
mutated return of Object value for org/jfree/data/Range::combineIgnoringNaN
      to ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED

    negated conditional → KILLED

    removed conditional - replaced equality check with false → KILLED

247
      3. removed conditional - replaced equality check with true → KILLED
      4. not equal to equal → KILLED

    negated conditional → KILLED

      removed call to org/jfree/data/Range::isNaNRange → KILLED
      3. removed conditional - replaced equality check with false → KILLED
      4. removed conditional - replaced equality check with true → KILLED
      5. equal to less than → KILLED
      6. equal to less or equal → SURVIVED
      7. equal to greater than → KILLED
      equal to greater or equal → KILLED
      9. equal to not equal → KILLED

    mutated return of Object value for org/jfree/data/Range::combineIgnoringNaN

249
      to ( if (x != null) null else throw new RuntimeException ) → KILLED

    replaced return value with null for org/jfree/data/Range::combineIgnoringNaN

      → KILLED
251
      mutated return of Object value for org/jfree/data/Range::combineIgnoringNaN
      to ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED

    replaced call to org/jfree/data/Range::min with argument → KILLED

      removed call to org/jfree/data/Range::getLowerBound → KILLED
253
      3. removed call to org/jfree/data/Range::getLowerBound → KILLED
      4. removed call to org/jfree/data/Range::min → KILLED

    replaced call to org/jfree/data/Range::max with argument → KILLED

      removed call to org/jfree/data/Range::getUpperBound → KILLED
254
      3. removed call to org/jfree/data/Range::getUpperBound → KILLED
      4. removed call to org/jfree/data/Range::max → KILLED

    negated conditional → KILLED

      2. negated conditional → KILLED
      3. removed call to java/lang/Double::isNaN → KILLED

 removed call to java/lang/Double::isNaN → KILLED

      5. removed conditional - replaced equality check with false → KILLED
      removed conditional - replaced equality check with false → KILLED

    removed conditional - replaced equality check with true → SURVIVED

      8. removed conditional - replaced equality check with true 
ightarrow KILLED
      9. Negated double local variable number 2 → SURVIVED
      10. Negated double local variable number 4 → SURVIVED
      11. equal to less than → SURVIVED
      equal to less than → KILLED

 equal to less or equal → SURVIVED

      14. equal to less or equal → SURVIVED
255
      15. equal to greater than → KILLED
      equal to greater than → KILLED
      17. equal to \bar{g} reater or equal \rightarrow KILLED
      18. equal to greater or equal → KILLED
      19. equal to not equal → KILLED
      20. equal to not equal → KILLED
      21. Incremented (a++) double local variable number 2 → KILLED
      22. Incremented (a++) double local variable number 4 → KILLED
      23. Decremented (a--) double local variable number 2 → KILLED
      24. Decremented (a--) double local variable number 4 → KILLED
      25. Incremented (++a) double local variable number 2 → KILLED
      26. Incremented (++a) double local variable number 4 → KILLED 27. Decremented (--a) double local variable number 2 → KILLED
      28. Decremented (--a) double local variable number 4 → KILLED

    mutated return of Object value for org/jfree/data/Range::combineIgnoringNaN

256
      to ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED
258

    removed call to org/jfree/data/Range::<init> → KILLED

      replaced return value with null for org/jfree/data/Range::combineIgnoringNaN
      mutated return of Object value for org/jfree/data/Range::combineIgnoringNaN
      to ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED
```

```
    Negated double local variable number 2 → KILLED

      5. Negated double local variable number 4 → KILLED
      6. Incremented (a++) double local variable number 2 → SURVIVED
      7. Incremented (a++) double local variable number 4 → SURVIVED
      8. Decremented (a--) double local variable number 2 \rightarrow SURVIVED 9. Decremented (a--) double local variable number 4 \rightarrow SURVIVED
      10. Incremented (++a) double local variable number 2 → KILLED 11. Incremented (++a) double local variable number 4 → KILLED 12. Decremented (--a) double local variable number 2 → KILLED
      13. Decremented (--a) double local variable number 4 → KILLED

    negated conditional → KILLED

      removed call to java/lang/Double::isNaN → SURVIVED

 removed conditional - replaced equality check with false → SURVIVED

      4. removed conditional - replaced equality check with true → KILLED
      5. Negated double local variable number 0 → SURVIVED
      6. equal to less than → KILLED
      7. equal to less or equal → SURVIVED
271
      8. equal to greater than \rightarrow KILLED
      9. equal to greater or equal → SURVIVED
      10. equal to not equal → KILLED
      11. Incremented (a++) double local variable number 0 → KILLED
      12. Decremented (a--) double local variable number 0 	o KILLED
      13. Incremented (++a) double local variable number 0 → KILLED
      14. Decremented (--a) double local variable number 0 → KILLED

    replaced double return with 0.0d for org/jfree/data/Range::min → KILLED

    replaced return of double value with -(x + 1) for org/jfree/data/Range::min

    Negated double local variable number 2 → SURVIVED

272
      4. Incremented (a++) double local variable number 2 → SURVIVED

    Decremented (a--) double local variable number 2 → SURVIVED

      6. Incremented (++a) double local variable number 2 → SURVIVED
      7. Decremented (--a) double local variable number 2 → SURVIVED

    negated conditional → KILLED

      removed call to java/lang/Double::isNaN → KILLED

    removed conditional - replaced equality check with false → KILLED

    removed conditional - replaced equality check with true → KILLED

      5. Negated double local variable number 2 → SURVIVED
      6. equal to less than → KILLED
      7. equal to less or equal → SURVIVED
274
      8. equal to greater than → KILLED
      9. equal to greater or equal → KILLED
      10. equal to not equal → KILLED
      11. Incremented (a++) double local variable number 2 \rightarrow KILLED 12. Decremented (a--) double local variable number 2 \rightarrow KILLED
      13. Incremented (++a) double local variable number 2 → KILLED
      14. Decremented (--a) double local variable number 2 → KILLED

    replaced double return with 0.0d for org/jfree/data/Range::min → KILLED

      2. replaced return of double value with -(x + 1) for org/jfree/data/Range::min

    Negated double local variable number 0 → KILLED

275

    4. Incremented (a++) double local variable number 0 → SURVIVED
    5. Decremented (a--) double local variable number 0 → SURVIVED

      6. Incremented (++a) double local variable number 0 → KILLED
      7. Decremented (--a) double local variable number 0 → KILLED
277

    replaced call to java/lang/Math::min with argument → KILLED

      removed call to java/lang/Math::min → KILLED
      3. replaced double return with 0.0d for org/jfree/data/Range::min → KILLED
      4. replaced return of double value with -(x + 1) for org/jfree/data/Range::min
      → KILLED

    Negated double local variable number 0 → KILLED

      6. Negated double local variable number 2 → KILLED
      7. Incremented (a++) double local variable number 0 → SURVIVED

    Incremented (a++) double local variable number 2 → SURVIVED

      9. Decremented (a--) double local variable number 0 → SURVIVED

    Decremented (a--) double local variable number 2 → SURVIVED
```

```
11. Incremented (++a) double local variable number 0 → KILLED
       12. Incremented (++a) double local variable number 2 → KILLED
      13. Decremented (--a) double local variable number 0 \to KILLED 14. Decremented (--a) double local variable number 2 \to KILLED

    negated conditional → KILLED

       removed call to java/lang/Double::isNaN → KILLED
       removed conditional - replaced equality check with false → KILLED
       4. removed conditional - replaced equality check with true → KILLED

    Negated double local variable number 0 → SURVIVED

      6. equal to less than → KILLED
      7. equal to less or equal → SURVIVED
281
      8. equal to greater than → KILLED

 equal to greater or equal → KILLED

       10. equal to not equal → KILLED
      11. Incremented (a++) double local variable number 0 → KILLED 12. Decremented (a--) double local variable number 0 → KILLED
       13. Incremented (++a) double local variable number 0 → KILLED
      14. Decremented (--a) double local variable number 0 → KILLED

    replaced double return with 0.0d for org/jfree/data/Range::max → KILLED

       replaced return of double value with -(x + 1) for org/jfree/data/Range::max
      3. Negated double local variable number 2 → KILLED
282

    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

    negated conditional → KILLED

       removed call to java/lang/Double::isNaN → KILLED
      3. removed conditional - replaced equality check with false \rightarrow KILLED 4. removed conditional - replaced equality check with true \rightarrow KILLED
       5. Negated double local variable number 2 → SURVIVED
      equal to less than → KILLED
      7. equal to less or equal → SURVIVED
      8. equal to greater than → KILLED
       equal to greater or equal → KILLED
       equal to not equal → KILLED
       11. Incremented (a++) double local variable number 2 → KILLED
       12. Decremented (a--) double local variable number 2 → KILLED
       13. Incremented (++a) double local variable number 2 → KILLED
       14. Decremented (--a) double local variable number 2 → KILLED

    replaced double return with 0.0d for org/jfree/data/Range::max → KILLED

       replaced return of double value with -(x + 1) for org/jfree/data/Range::max
      → KILLED

 Negated double local variable number 0 → KILLED

285

    Incremented (a++) double local variable number 0 → SURVIVED

       5. Decremented (a--) double local variable number 0 → SURVIVED

    Incremented (++a) double local variable number 0 → KILLED

    Decremented (--a) double local variable number 0 → KILLED

    replaced call to java/lang/Math::max with argument → KILLED

       removed call to java/lang/Math::max → KILLED
       3. replaced double return with 0.0d for org/jfree/data/Range::max → KILLED
      4. replaced return of double value with -(x + 1) for org/jfree/data/Range::max
      → KILLED

    Negated double local variable number 0 → KILLED

      6. Negated double local variable number 2 → KILLED

    Incremented (a++) double local variable number 0 → SURVIVED
    Incremented (a++) double local variable number 2 → SURVIVED
    Decremented (a--) double local variable number 0 → SURVIVED

<u>28</u>7

    Decremented (a--) double local variable number 2 → SURVIVED

       11. Incremented (++a) double local variable number 0 → KILLED
       12. Incremented (++a) double local variable number 2 → KILLED
       13. Decremented (--a) double local variable number 0 → KILLED
       14. Decremented (--a) double local variable number 2 → KILLED
302

    negated conditional → KILLED

       removed conditional - replaced equality check with false → KILLED
```

```
3. removed conditional - replaced equality check with true \rightarrow KILLED
       4. not equal to equal → KILLED

    removed call to org/jfree/data/Range::<init> → KILLED

       replaced return value with null for org/jfree/data/Range::expandToInclude →
       mutated return of Object value for org/jfree/data/Range::expandToInclude to
       ( if (x != null) null else throw new RuntimeException ) → KILLED

    Negated double local variable number 1 → KILLED

       5. Negated double local variable number 1 → KILLED
303
      6. Incremented (a++) double local variable number 1 \rightarrow KILLED
      7. Incremented (a++) double local variable number 1 → SURVIVED 8. Decremented (a--) double local variable number 1 → KILLED 9. Decremented (a--) double local variable number 1 → SURVIVED
       10. Incremented (++a) double local variable number 1 \rightarrow KILLED 11. Incremented (++a) double local variable number 1 \rightarrow KILLED
       12. Decremented (--a) double local variable number 1 → KILLED
       13. Decremented (--a) double local variable number 1 → KILLED

    changed conditional boundary → SURVIVED

       negated conditional → KILLED
       3. removed call to org/jfree/data/Range::getLowerBound → KILLED
       4. removed conditional - replaced comparison check with false \rightarrow KILLED 5. removed conditional - replaced comparison check with true \rightarrow KILLED
       6. Negated double local variable number 1 → 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
       greater or equal to equal → KILLED
       11. greater or equal to not equal → KILLED
       12. Incremented (a++) double local variable number 1 → KILLED
       13. Decremented (a--) double local variable number 1 → KILLED
       14. Incremented (++a) double local variable number 1 → KILLED
       15. Decremented (--a) double local variable number 1 → KILLED

    removed call to org/jfree/data/Range::<init> → KILLED

       removed call to org/jfree/data/Range::getUpperBound → KILLED
       3. replaced return value with null for org/jfree/data/Range::expandToInclude →
      KILLED
      4. mutated return of Object value for org/jfree/data/Range::expandToInclude to
       ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED
306
       5. Negated double local variable number 1 → SURVIVED
      6. Incremented (a++) double local variable number 1 → SURVIVED 7. Decremented (a--) double local variable number 1 → SURVIVED 8. Incremented (++a) double local variable number 1 → KILLED

    Decremented (--a) double local variable number 1 → KILLED

    changed conditional boundary → SURVIVED

       2. negated conditional → KILLED
       3. removed call to org/jfree/data/Range::getUpperBound \rightarrow KILLED
       4. removed conditional - replaced comparison check with false \rightarrow KILLED 5. removed conditional - replaced comparison check with true \rightarrow KILLED
       6. Negated double local variable number 1 → KILLED

 Less or equal to less than → SURVIVED

       8. Less or equal to greater than → KILLED
       9. Less or equal to \bar{g} reater or equal \rightarrow KILLED
       10. Less or equal to equal → KILLED
       11. Less or equal to not equal → KILLED
       12. Incremented (a++) double local variable number 1 \rightarrow KILLED
       13. Decremented (a--) double local variable number 1 \rightarrow KILLED
       14. Incremented (++a) double local variable number 1 → KILLED
       15. Decremented (--a) double local variable number 1 \rightarrow KILLED
309

    removed call to org/jfree/data/Range::<init> → KILLED

    removed call to org/jfree/data/Range::getLowerBound → KILLED

       replaced return value with null for org/jfree/data/Range::expandToInclude →
      KILLED
       4. mutated return of Object value for org/jfree/data/Range::expandToInclude to
       ( if (x != null) null else throw new RuntimeException ) \rightarrow KILLED
       5. Negated double local variable number 1 → KILLED
```

```
    Incremented (a++) double local variable number 1 → SURVIVED

      7. Decremented (a--) double local variable number 1 → SURVIVED
      8. Incremented (++a) double local variable number 1 \rightarrow KILLED
      9. Decremented (--a) double local variable number 1 → KILLED

    replaced return value with null for org/jfree/data/Range::expandToInclude →

      KILLED
312
      mutated return of Object value for org/jfree/data/Range::expandToInclude to
      ( if (x != null) null else throw new RuntimeException ) → KILLED

    removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →

329
      SURVIVED
330
      1. removed call to org/jfree/data/Range::getLength → KILLED

    Replaced double multiplication with division → KILLED

    Replaced double subtraction with addition → KILLED

      3. removed call to org/jfree/data/Range::getLowerBound → KILLED

    Negated double local variable number 5 → KILLED

    Negated double local variable number 1 → KILLED

      Replaced double operation with first member → KILLED

    Replaced double operation with first member → KILLED

      Replaced double operation by second member → KILLED
      Replaced double operation by second member → KILLED
      10. Replaced double multiplication with division → KILLED

    Replaced double subtraction with addition → KILLED

      12. Replaced double multiplication with modulus → KILLED
331
      13. Replaced double subtraction with multiplication → KILLED
      14. Replaced double multiplication with addition → KILLED
      15. Replaced double subtraction with division → KILLED
      16. Replaced double multiplication with subtraction → KILLED
      17. Replaced double subtraction with modulus → KILLED
      18. Incremented (a++) double local variable number 5 → KILLED
      19. Incremented (a++) double local variable number 1 \rightarrow SURVIVED
      20. Decremented (a--) double local variable number 5 \rightarrow KILLED
      21. Decremented (a--) double local variable number 1 → SURVIVED
      22. Incremented (++a) double local variable number 5 → KILLED
      23. Incremented (++a) double local variable number 1 \rightarrow KILLED 24. Decremented (--a) double local variable number 5 \rightarrow KILLED 25. Decremented (--a) double local variable number 1 \rightarrow KILLED

    Replaced double multiplication with division → KILLED

      2. Replaced double addition with subtraction → KILLED
      3. removed call to org/jfree/data/Range::getUpperBound → KILLED

    Negated double local variable number 5 → KILLED

 Negated double local variable number 3 → KILLED

      Replaced double operation with first member → KILLED

    Replaced double operation with first member → KILLED

      8. Replaced double operation by second member → KILLED
      9. Replaced double operation by second member \rightarrow KILLED
      10. Replaced double multiplication with division → KILLED
      11. Replaced double addition with subtraction → KILLED
      12. Replaced double multiplication with modulus → KILLED
332

    Replaced double addition with multiplication → KILLED

      14. Replaced double multiplication with addition → KILLED
      15. Replaced double addition with division → KILLED
      16. Replaced double multiplication with subtraction → KILLED
      17. Replaced double addition with modulus → KILLED
      18. Incremented (a++) double local variable number 5 → SURVIVED
      19. Incremented (a++) double local variable number 3 → SURVIVED 20. Decremented (a--) double local variable number 5 → SURVIVED 21. Decremented (a--) double local variable number 3 → SURVIVED 22. Incremented (++a) double local variable number 5 → KILLED
      23. Incremented (++a) double local variable number 3 → KILLED
      24. Decremented (--a) double local variable number 5 → KILLED
      25. Decremented (--a) double local variable number 3 → KILLED
333
      1. changed conditional boundary → SURVIVED
      negated conditional → KILLED
      3. removed conditional - replaced comparison check with false 
ightarrow KILLED

    removed conditional - replaced comparison check with true → KILLED
```

```
 Negated double local variable number 7 → KILLED

      Negated double local variable number 9 → KILLED

 Less or equal to less than → SURVIVED

      Less or equal to greater than → KILLED
      9. Less or equal to greater or equal → KILLED
      Less or equal to equal → KILLED
      11. Less or equal to not equal → KILLED
      12. Incremented (a++) double local variable number 7 → KILLED 13. Incremented (a++) double local variable number 9 → KILLED
      14. Decremented (a--) double local variable number 7 → KILLED
      15. Decremented (a--) double local variable number 9 → KILLED
      16. Incremented (++a) double local variable number 7 → KILLED
      17. Incremented (++a) double local variable number 9 → KILLED
      18. Decremented (--a) double local variable number 7 → KILLED
      19. Decremented (--a) double local variable number 9 → KILLED
      1. Substituted 2.0 with 1.0 → KILLED
      2. Substituted 2.0 with 1.0 → KILLED

    Replaced double division with multiplication → KILLED

    Replaced double division with multiplication → KILLED

      Replaced double addition with subtraction → KILLED

 Negated double local variable number 7 → KILLED

    Negated double local variable number 9 → KILLED

      Replaced double operation with first member → KILLED
      9. Replaced double operation with first member → KILLED

    Replaced double operation with first member → KILLED

      11. Replaced double operation by second member → KILLED
      12. Replaced double operation by second member \rightarrow KILLED

    Replaced double operation by second member → KILLED

      14. Replaced double division with multiplication → KILLED
      15. Replaced double division with multiplication → KILLED
      16. Replaced double addition with subtraction → KILLED
      17. Replaced double division with modulus → KILLED
      18. Replaced double division with modulus → KILLED
      19. Replaced double addition with multiplication → KILLED
      20. Replaced double division with addition → KILLED

 Replaced double division with addition → KILLED

      22. Replaced double addition with division → KILLED
334
      23. Replaced double division with subtraction → KILLED
      24. Replaced double division with subtraction → KILLED
      25. Replaced double addition with modulus → KILLED
      26. Substituted 2.0 with 1.0 → KILLED
      27. Substituted 2.0 with 1.0 → KILLED 28. Substituted 2.0 with 0.0 → KILLED
      29. Substituted 2.0 with 0.0 → KILLED
      30. Substituted 2.0 with -1.0 → KILLED
      31. Substituted 2.0 with -1.0 → KILLED
      32. Substituted 2.0 with -2.0 → KILLED
      33. Substituted 2.0 with -2.0 → KILLED
      34. Substituted 2.0 with 3.0 → KILLED
      35. Substituted 2.0 with 3.0 → KILLED
      36. Substituted 2.0 with 1.0 → KILLED
      37. Substituted 2.0 with 1.0 → KILLED
      38. Incremented (a++) double local variable number 7 → SURVIVED
      39. Incremented (a++) double local variable number 9 \rightarrow SURVIVED
      40. Decremented (a--) double local variable number 7 → SURVIVED
      41. Decremented (a--) double local variable number 9 \rightarrow SURVIVED
      42. Incremented (++a) double local variable number 7 \rightarrow KILLED 43. Incremented (++a) double local variable number 9 \rightarrow KILLED
      44. Decremented (--a) double local variable number 7 → KILLED
      45. Decremented (--a) double local variable number 9 → KILLED

    Negated double local variable number 7 → KILLED

      2. Incremented (a++) double local variable number 7 → KILLED
335

    Decremented (a--) double local variable number 7 → KILLED

    Incremented (++a) double local variable number 7 → KILLED

    Decremented (--a) double local variable number 7 → KILLED

337
      1. removed call to org/jfree/data/Range::<init> → KILLED
```

```
replaced return value with null for org/jfree/data/Range::expand → KILLED
       3. mutated return of Object value for org/jfree/data/Range::expand to ( if (x !
       = null) null else throw new RuntimeException ) → KILLED

    Negated double local variable number 7 → KILLED

    Negated double local variable number 9 → KILLED

    Incremented (a++) double local variable number 7 → SURVIVED
    Incremented (a++) double local variable number 9 → SURVIVED
    Decremented (a--) double local variable number 7 → SURVIVED
    Decremented (a--) double local variable number 9 → SURVIVED

       10. Incremented (++a) double local variable number 7 → KILLED
       11. Incremented (++a) double local variable number 9 → KILLED
       12. Decremented (--a) double local variable number 7 → KILLED
       13. Decremented (--a) double local variable number 9 → KILLED
       1. replaced call to org/jfree/data/Range::shift with argument \rightarrow KILLED 2. Substituted 0 with 1 \rightarrow SURVIVED
       3. removed call to org/jfree/data/Range::shift → KILLED
       4. replaced return value with null for org/jfree/data/Range::shift → KILLED
       5. mutated return of Object value for org/jfree/data/Range::shift to ( if (x !=
       null) null else throw new RuntimeException ) → KILLED
       6. Negated double local variable number 1 → KILLED
349
       7. Substituted 0 with 1 → SURVIVED
       Substituted 0 with -1 → SURVIVED
       9. Substituted 0 with 1 → SURVIVED
       10. Substituted 0 with -1 → SURVIVED
       11. Incremented (a++) double local variable number 1 \rightarrow SURVIVED
       12. Decremented (a--) double local variable number 1 \rightarrow SURVIVED
       13. Incremented (++a) double local variable number 1 \rightarrow KILLED 14. Decremented (--a) double local variable number 1 \rightarrow KILLED

    removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →

365
      SURVIVED

    negated conditional → KILLED

       2. removed conditional - replaced equality check with false \rightarrow KILLED
       3. removed conditional - replaced equality check with true → KILLED

    Negated integer local variable number 3 → SURVIVED

       equal to less than → KILLED
       equal to less or equal → SURVIVED
      7. equal to greater than → KILLED
366
       8. equal to greater or equal → KILLED
       9. equal to not equal → KILLED
      10. Incremented (a++) integer local variable number 3 → SURVIVED 11. Decremented (a--) integer local variable number 3 → SURVIVED 12. Incremented (++a) integer local variable number 3 → KILLED 13. Decremented (--a) integer local variable number 3 → KILLED

    removed call to org/jfree/data/Range::<init> → KILLED

    Replaced double addition with subtraction → KILLED

       3. removed call to org/jfree/data/Range::getLowerBound → KILLED

    replaced return value with null for org/jfree/data/Range::shift → KILLED

       5. mutated return of Object value for org/jfree/data/Range::shift to ( if (x !=
       null) null else throw new RuntimeException ) → KILLED
       Negated double local variable number 1 → KILLED
       7. Replaced double operation with first member → KILLED
       8. Replaced double operation by second member → KILLED
367
      9. Replaced double addition with subtraction → KILLED
       10. Replaced double addition with multiplication → KILLED

    Replaced double addition with division → KILLED

       12. Replaced double addition with modulus → KILLED
       13. Incremented (a++) double local variable number 1 	o 	ext{KILLED}
       14. Decremented (a--) double local variable number 1 → KILLED
       15. Incremented (++a) double local variable number 1 → KILLED
       16. Decremented (--a) double local variable number 1 → KILLED
       1. Replaced double addition with subtraction → KILLED
368
       removed call to org/jfree/data/Range::getUpperBound → KILLED
       3. Negated double local variable number 1 → KILLED

    Replaced double operation with first member → KILLED

    Replaced double operation by second member → KILLED
```

```
Replaced double addition with subtraction → KILLED
       7. Replaced double addition with multiplication → KILLED
       Replaced double addition with division → KILLED

    Replaced double addition with modulus → KILLED

       10. Incremented (a++) double local variable number 1 \rightarrow SURVIVED 11. Decremented (a--) double local variable number 1 \rightarrow SURVIVED 12. Incremented (++a) double local variable number 1 \rightarrow KILLED 13. Decremented (--a) double local variable number 1 \rightarrow KILLED

    replaced call to org/jfree/data/Range::shiftWithNoZeroCrossing with argument

       → KILLED
       2. removed call to org/jfree/data/Range::<init> → KILLED
       3. removed call to org/jfree/data/Range::getLowerBound → KILLED4. removed call to org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED
371

    replaced return value with null for org/jfree/data/Range::shift → KILLED
    mutated return of Object value for org/jfree/data/Range::shift to ( if (x !=

       null) null else throw new RuntimeException ) → KILLED

    replaced call to org/jfree/data/Range::shiftWithNoZeroCrossing with argument

       → KILLED
       2. removed call to org/jfree/data/Range::getUpperBound → KILLED
       3. removed call to org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED

    Negated double local variable number 1 → KILLED

372
       5. Incremented (a++) double local variable number 1 → KILLED6. Decremented (a--) double local variable number 1 → KILLED
       7. Incremented (++a) double local variable number 1 → KILLED
       8. Decremented (--a) double local variable number 1 → KILLED

    Negated double local variable number 1 → KILLED

       2. Incremented (a++) double local variable number 1 → SURVIVED

    Decremented (a--) double local variable number 1 → SURVIVED
    Incremented (++a) double local variable number 1 → KILLED
    Decremented (--a) double local variable number 1 → KILLED

373

    changed conditional boundary → KILLED

       Substituted 0.0 with 1.0 → SURVIVED
       negated conditional → KILLED
       4. removed conditional - replaced comparison check with false \rightarrow KILLED
       5. removed conditional - replaced comparison check with true \rightarrow KILLED
       6. Negated double local variable number 0 → KILLED
       7. Substituted 0.0 with 1.0 \rightarrow SURVIVED
       8. Substituted 0.0 with -1.0 → KILLED
       9. Substituted 0.0 with 1.0 → SURVIVED
387
       10. Substituted 0.0 with -1.0 → KILLED
       11. Less or equal to less than → KILLED

 Less or equal to greater than → KILLED

       13. Less or equal to greater or equal → KILLED
       14. Less or equal to equal → KILLED

 Less or equal to not equal → KILLED

       16. Incremented (a++) double local variable number 0 \rightarrow KILLED
       17. Decremented (a--) double local variable number 0 → KILLED 18. Incremented (++a) double local variable number 0 → KILLED
       19. Decremented (--a) double local variable number 0 → KILLED
388

    replaced call to java/lang/Math::max with argument → KILLED

       2. Substituted 0.0 with 1.0 → KILLED

    Replaced double addition with subtraction → KILLED

       4. removed call to java/lang/Math::max → KILLED
       5. replaced double return with 0.0d for
       org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED
       6. replaced return of double value with -(x + 1) for
       org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED
       7. Negated double local variable number 0 → KILLED
       8. Negated double local variable number 2 → KILLED
       9. Replaced double operation with first member → KILLED

    Replaced double operation by second member → KILLED

       11. Replaced double addition with subtraction → KILLED
       12. Replaced double addition with multiplication → KILLED

 Replaced double addition with division → KILLED

       14. Replaced double addition with modulus → KILLED
```

```
15. Substituted 0.0 with 1.0 → KILLED
      16. Substituted 0.0 with -1.0 → KILLED
      17. Substituted 0.0 with 1.0 → KILLED
      18. Substituted 0.0 with -1.0 → KILLED
      19. Incremented (a++) double local variable number 0 \rightarrow SURVIVED 20. Incremented (a++) double local variable number 2 \rightarrow SURVIVED 21. Decremented (a--) double local variable number 0 \rightarrow SURVIVED
      22. Decremented (a--) double local variable number 2 → SURVIVED
      23. Incremented (++a) double local variable number 0 → KILLED
      24. Incremented (++a) double local variable number 2 → KILLED
      25. Decremented (--a) double local variable number 0 → KILLED
      26. Decremented (--a) double local variable number 2 → KILLED

    changed conditional boundary → SURVIVED

      Substituted 0.0 with 1.0 → SURVIVED
      negated conditional → KILLED
      4. removed conditional - replaced comparison check with false → KILLED
      5. removed conditional - replaced comparison check with true → SURVIVED
      6. Negated double local variable number 0 → KILLED
      7. Substituted 0.0 with 1.0 → SURVIVED
      8. Substituted 0.0 with -1.0 → SURVIVED
      Substituted 0.0 with 1.0 → SURVIVED
390
      10. Substituted 0.0 with -1.0 → SURVIVED

 greater or equal to less than → KILLED

      12. greater or equal to less or equal → KILLED
      13. greater or equal to greater than → SURVIVED
      14. greater or equal to equal → SURVIVED
      15. greater or equal to not equal \rightarrow KILLED
      16. Incremented (a++) double local variable number 0 → KILLED 17. Decremented (a--) double local variable number 0 → KILLED 18. Incremented (++a) double local variable number 0 → KILLED
      19. Decremented (--a) double local variable number 0 → KILLED

    replaced call to java/lang/Math::min with argument → KILLED

      2. Substituted 0.0 with 1.0 → KILLED

    Replaced double addition with subtraction → KILLED

      4. removed call to java/lang/Math::min → KILLED
      replaced double return with 0.0d for
      org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED
      6. replaced return of double value with -(x + 1) for
      org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED

    Negated double local variable number 0 → KILLED

 Negated double local variable number 2 → KILLED

      Replaced double operation with first member → KILLED

    Replaced double operation by second member → KILLED

    Replaced double addition with subtraction → KILLED

      12. Replaced double addition with multiplication → KILLED
391

 Replaced double addition with division → KILLED

      14. Replaced double addition with modulus → KILLED
      15. Substituted 0.0 with 1.0 → KILLED
      16. Substituted 0.0 with -1.0 → KILLED
      17. Substituted 0.0 with 1.0 → KILLED
      18. Substituted 0.0 with -1.0 → KILLED
      19. Incremented (a++) double local variable number 0 \rightarrow SURVIVED
      20. Incremented (a++) double local variable number 2 → SURVIVED
      21. Decremented (a--) double local variable number 0 → SURVIVED
      22. Decremented (a--) double local variable number 2 → SURVIVED
      23. Incremented (++a) double local variable number 0 → KILLED
      24. Incremented (++a) double local variable number 2 → KILLED
      25. Decremented (--a) double local variable number 0 → KILLED
      26. Decremented (--a) double local variable number 2 → KILLED
394

    Replaced double addition with subtraction → KILLED

      replaced double return with 0.0d for
      org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED
      3. replaced return of double value with -(x + 1) for
      org/jfree/data/Range::shiftWithNoZeroCrossing → KILLED

    Negated double local variable number 0 → SURVIVED

    Negated double local variable number 2 → KILLED
```

```
Replaced double operation with first member → KILLED

    Replaced double operation by second member → SURVIVED

       Replaced double addition with subtraction → KILLED
       Replaced double addition with multiplication → KILLED

 Replaced double addition with division → KILLED

    Replaced double addition with modulus → KILLED

      12. Incremented (a++) double local variable number 0 \rightarrow SURVIVED 13. Incremented (a++) double local variable number 2 \rightarrow SURVIVED
       14. Decremented (a--) double local variable number 0 → SURVIVED
       15. Decremented (a--) double local variable number 2 → SURVIVED
       16. Incremented (++a) double local variable number 0 → KILLED
       17. Incremented (++a) double local variable number 2 → KILLED
       18. Decremented (--a) double local variable number 0 → KILLED
       19. Decremented (--a) double local variable number 2 → KILLED

    removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →

409
      SURVIVED

    changed conditional boundary → SURVIVED

       Substituted 0.0 with 1.0 → KILLED
       negated conditional → KILLED
       4. removed conditional - replaced comparison check with false 
ightarrow SURVIVED
       5. removed conditional - replaced comparison check with true → KILLED

 Negated double local variable number 1 → KILLED

      7. Substituted 0.0 with 1.0 → KILLED
      8. Substituted 0.0 with -1.0 → SURVIVED
      9. Substituted 0.0 with 1.0 → KILLED
410
      10. Substituted 0.0 with -1.0 → SURVIVED
       11. greater or equal to less than → KILLED
       12. greater or equal to less or equal → KILLED

 greater or equal to greater than → SURVIVED

       14. greater or equal to equal → KILLED
       15. greater or equal to not equal → SURVIVED
       16. Incremented (a++) double local variable number 1 \rightarrow KILLED
       17. Decremented (a--) double local variable number 1 → KILLED
      18. Incremented (++a) double local variable number 1 \rightarrow KILLED 19. Decremented (--a) double local variable number 1 \rightarrow KILLED
411

    removed call to java/lang/IllegalArgumentException::<init> → KILLED

    removed call to org/jfree/data/Range::<init> → KILLED

    Replaced double multiplication with division → KILLED

       3. removed call to org/jfree/data/Range::getLowerBound → KILLED

    replaced return value with null for org/jfree/data/Range::scale → KILLED
    mutated return of Object value for org/jfree/data/Range::scale to ( if (x !=

       null) null else throw new RuntimeException ) → KILLED
      6. Negated double local variable number 1 → KILLED
      7. Replaced double operation with first member → KILLED
413
      8. Replaced double operation by second member → KILLED
      9. Replaced double multiplication with division → KILLED

    Replaced double multiplication with modulus → KILLED

    Replaced double multiplication with addition → KILLED

       12. Replaced double multiplication with subtraction → KILLED
      13. Incremented (a++) double local variable number 1 \rightarrow KILLED 14. Decremented (a--) double local variable number 1 \rightarrow KILLED 15. Incremented (++a) double local variable number 1 \rightarrow KILLED
      16. Decremented (--a) double local variable number 1 → KILLED
414
      1. Replaced double multiplication with division → KILLED
       2. removed call to org/jfree/data/Range::getUpperBound → KILLED

 Negated double local variable number 1 → KILLED

    Replaced double operation with first member → KILLED

       5. Replaced double operation by second member → KILLED
       Replaced double multiplication with division → KILLED
      7. Replaced double multiplication with modulus → KILLED
      8. Replaced double multiplication with addition → KILLED
      9. Replaced double multiplication with subtraction → KILLED
       10. Incremented (a++) double local variable number 1 \rightarrow SURVIVED
       11. Decremented (a--) double local variable number 1 \rightarrow SURVIVED
       12. Incremented (++a) double local variable number 1 \rightarrow KILLED
```

```
13. Decremented (--a) double local variable number 1 → KILLED
       1. negated conditional → KILLED
       2. removed conditional - replaced equality check with false \rightarrow KILLED
       3. removed conditional - replaced equality check with true → KILLED
      4. not equal to less than → KILLED
      5. not equal to less or equal → KILLED
      6. not equal to greater than → SURVIVED
      7. not equal to greater or equal → KILLED
      8. not equal to equal → KILLED

    replaced boolean return with true for org/jfree/data/Range::equals → KILLED

       2. Substituted 0 with 1 → KILLED
       3. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
427
       4. Substituted 0 with 1 → KILLED
      5. Substituted 0 with -1 → KILLED
      6. Substituted 0 with 1 → KILLED
      7. Substituted 0 with -1 → KILLED
      1. negated conditional → KILLED
       2. removed conditional - replaced equality check with false \rightarrow KILLED

    removed conditional - replaced equality check with true → KILLED

 Negated double field lower → KILLED

       Negated double field lower → KILLED
      6. equal to less than → KILLED
      7. equal to less or equal → KILLED
       8. equal to greater than → KILLED
      9. equal to greater or equal → KILLED
430
      10. equal to not equal \rightarrow KILLED
      11. Incremented (a++) double field lower → KILLED 12. Incremented (a++) double field lower → KILLED 13. Decremented (a--) double field lower → KILLED
      14. Decremented (a--) double field lower → KILLED
      15. Incremented (++a) double field lower → KILLED
      16. Incremented (++a) double field lower → KILLED
      17. Decremented (--a) double fieldlower → KILLED
       18. Decremented (--a) double fieldlower → KILLED

    replaced boolean return with true for org/jfree/data/Range::equals → KILLED

       Substituted 0 with 1 → KILLED
      3. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
431
      4. Substituted 0 with 1 → KILLED
       5. Substituted 0 with -1 → KILLED
      6. Substituted 0 with 1 → KILLED
      7. Substituted 0 with -1 → KILLED

    negated conditional → KILLED

      2. removed conditional - replaced equality check with false \rightarrow KILLED 3. removed conditional - replaced equality check with true \rightarrow KILLED
      4. Negated double field upper → KILLED
       5. Negated double field upper → KILLED
      6. equal to less than → KILLED
       equal to less or equal → KILLED
      8. equal to greater than → KILLED
      9. equal to greater or equal → KILLED
433
      10. equal to not equal → KILLED
       11. Incremented (a++) double field upper → KILLED
       12. Incremented (a++) double field upper → KILLED
       13. Decremented (a--) double field upper → KILLED
       14. Decremented (a--) double field upper → KILLED
      15. Incremented (++a) double field upper → KILLED 16. Incremented (++a) double field upper → KILLED 17. Decremented (--a) double fieldupper → KILLED
      18. Decremented (--a) double fieldupper → KILLED
434

    replaced boolean return with true for org/jfree/data/Range::equals → KILLED

       2. Substituted 0 with 1 → KILLED
       3. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
      4. Substituted 0 with 1 → KILLED
          Substituted 0 with -1 → KILLED
      6. Substituted 0 with 1 → KILLED
```

```
7. Substituted 0 with -1 → KILLED

    replaced boolean return with false for org/jfree/data/Range::equals → KILLED

       2. Substituted 1 with 0 → KILLED
       3. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
       4. Substituted 1 with 0 → KILLED
       Substituted 1 with -1 → SURVIVED
       Substituted 1 with -1 → SURVIVED
       7. Substituted 1 with 2 → KILLED
       8. Substituted 1 with 0 → KILLED

    replaced boolean return with false for org/jfree/data/Range::isNaNRange →

       replaced boolean return with true for org/jfree/data/Range::isNaNRange →
       KILLED
       Substituted 1 with 0 → KILLED
       4. Substituted 0 with 1 → KILLED
       negated conditional → KILLED
       6. negated conditional → KILLED
       7. removed call to java/lang/Double::isNaN → KILLED
8. removed call to java/lang/Double::isNaN → KILLED
       9. removed conditional - replaced equality check with false \rightarrow KILLED 10. removed conditional - replaced equality check with false \rightarrow KILLED
       11. removed conditional - replaced equality check with true \rightarrow KILLED 12. removed conditional - replaced equality check with true \rightarrow KILLED
       13. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
       14. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow KILLED
       15. Negated double field lower → SURVIVED
       16. Negated double field upper → SURVIVED
       17. Substituted 0 with 1 → KILLED
       18. Substituted 1 with 0 → KILLED
       19. Substituted 1 with -1 → SURVIVED
       20. Substituted 0 with -1 → KILLED
448
       21. Substituted 1 with -1 → SURVIVED
       22. Substituted 1 with 2 → KILLED
       23. Substituted 0 with 1 → KILLED
       24. Substituted 1 with 0 → KILLED
       25. Substituted 0 with -1 → KILLED
       26. equal to less than → KILLED
       27. equal to less than → KILLED
       28. equal to less or equal → SURVIVED
       29. equal to less or equal → SURVIVED
       30. equal to greater than → KILLED
       31. equal to greater than → KILLED
       32. equal to greater or equal → KILLED
       33. equal to greater or equal → KILLED
       34. equal to not equal → KILLED
       35. equal to not equal → KILLED
       36. Incremented (a++) double field lower → KILLED
       37. Incremented (a++) double field upper → SURVIVED 38. Decremented (a--) double field lower → KILLED 39. Decremented (a--) double field upper → SURVIVED 40. Incremented (++a) double field lower → KILLED
       41. Incremented (++a) double field upper → SURVIVED
       42. Decremented (--a) double fieldlower → KILLED
       43. Decremented (--a) double fieldupper → SURVIVED

    removed call to java/lang/Double::doubleToLongBits → SURVIVED

    Negated double field lower → SURVIVED

       3. Incremented (a++) double field lower → SURVIVED 4. Decremented (a--) double field lower → SURVIVED 5. Incremented (++a) double field lower → SURVIVED
460
       6. Decremented (--a) double fieldlower → SURVIVED
461
       1. Substituted 32 with 33 → SURVIVED
       2. Replaced Unsigned Shift Right with Shift Left → SURVIVED
       Replaced XOR with AND → SURVIVED

4. Negated long local variable number 2 → SURVIVED
5. Negated long local variable number 2 → SURVIVED
6. Substituted 32 with 1 → SURVIVED
```

```
 Substituted 32 with 0 → SURVIVED

      8. Substituted 32 with -1 → SURVIVED
      9. Substituted 32 with -32 → SURVIVED
      10. Substituted 32 with 33 → SURVIVED
      11. Substituted 32 with 31 → SURVIVED
      12. Incremented (a++) long local variable number 1 → SURVIVED 13. Incremented (a++) long local variable number 1 → SURVIVED 14. Decremented (a--) long local variable number 2 → SURVIVED 15. Decremented (a--) long local variable number 2 → SURVIVED
      16. Incremented (++a) long local variable number 1 → SURVIVED
      17. Incremented (++a) long local variable number 1 → SURVIVED
      18. Decremented (--a) long local variable number 2 → SURVIVED
      19. Decremented (--a) long local variable number 2 → SURVIVED

    removed call to java/lang/Double::doubleToLongBits → SURVIVED
    Negated double field upper → SURVIVED

      3. Incremented (a++) double field upper → SURVIVED
462
      4. Decremented (a--) double field upper → SURVIVED

    Incremented (++a) double field upper → SURVIVED

      6. Decremented (--a) double fieldupper → SURVIVED
      1. Substituted 29 with 30 → SURVIVED
      2. Substituted 32 with 33 → SURVIVED
      Replaced integer multiplication with division → SURVIVED
      4. Replaced Unsigned Shift Right with Shift Left → SURVIVED
      Replaced XOR with AND → SURVIVED
      Replaced integer addition with subtraction → SURVIVED
      7. Negated integer local variable number 1 → SURVIVED
      8. Negated long local variable number 2 → SURVIVED
      9. Negated long local variable number 2 → SURVIVED

    Replaced integer operation with first member → SURVIVED

    Replaced integer operation with first member → SURVIVED

      12. Replaced integer operation by second member → SURVIVED

    Replaced integer operation by second member → SURVIVED

      14. Replaced integer multiplication with division → SURVIVED
      15. Replaced integer addition with subtraction \rightarrow SURVIVED
      16. Replaced integer multiplication with modulus \rightarrow SURVIVED
      17. Replaced integer addition with multiplication → SURVIVED
      18. Replaced integer multiplication with addition → SURVIVED
      19. Replaced integer addition with division \rightarrow SURVIVED
      20. Replaced integer multiplication with subtraction → SURVIVED
      21. Replaced integer addition with modulus → SURVIVED
      22. Substituted 29 with 1 → SURVIVED
463
      23. Substituted 32 with 1 → SURVIVED
      24. Substituted 29 with 0 → SURVIVED
      25. Substituted 32 with 0 → SURVIVED
      26. Substituted 29 with -1 → SURVIVED
      27. Substituted 32 with -1 → SURVIVED
      28. Substituted 29 with -29 → SURVIVED
      29. Substituted 32 with -32 → SURVIVED
      30. Substituted 29 with 30 → SURVIVED
      31. Substituted 32 with 33 → SURVIVED 32. Substituted 29 with 28 → SURVIVED
      33. Substituted 32 with 31 → SURVIVED
      34. Incremented (a++) integer local variable number 3 → SURVIVED
      35. Incremented (a++) long local variable number 1 → SURVIVED
      36. Incremented (a++) long local variable number 1 → SURVIVED
      37. Decremented (a--) integer local variable number 1 → SURVIVED
      38. Decremented (a--) long local variable number 2 → SURVIVED
      39. Decremented (a--) long local variable number 2 → SURVIVED
      40. Incremented (++a) integer local variable number 3 → SURVIVED
      41. Incremented (++a) long local variable number 1 → SURVIVED 42. Incremented (++a) long local variable number 1 → SURVIVED
      43. Decremented (--a) integer local variable number 1 → SURVIVED
      44. Decremented (--a) long local variable number 2 → SURVIVED 45. Decremented (--a) long local variable number 2 → SURVIVED
464

    replaced int return with 0 for org/jfree/data/Range::hashCode → SURVIVED

      2. replaced return of integer sized value with (x == 0 ? 1 : 0) \rightarrow SURVIVED
```

```
3. Negated integer local variable number 1 → SURVIVED
        4. Incremented (a++) integer local variable number 3 → SURVIVED 5. Decremented (a--) integer local variable number 1 → SURVIVED 6. Incremented (++a) integer local variable number 3 → SURVIVED

    Decremented (--a) integer local variable number 1 → SURVIVED

    removed call to java/lang/StringBuilder::<init> → KILLED
    replaced return value with "" for org/jfree/data/Range::toString → KILLED

         3. removed call to java/lang/StringBuilder::append → KILLED
        4. removed call to java/lang/StringBuilder::append → KILLED5. removed call to java/lang/StringBuilder::append → KILLED
         6. removed call to java/lang/StringBuilder::append → KILLED
        7. removed call to java/lang/StringBuilder::toString → KILLED 8. mutated return of Object value for org/jfree/data/Range::toString to (if
         (x != null) null else throw new RuntimeException ) <math>\rightarrow KILLED
         9. replaced call to java/lang/StringBuilder::append with receiver → KILLED
        10. replaced call to java/lang/StringBuilder::append with receiver → KILLED 11. replaced call to java/lang/StringBuilder::append with receiver → KILLED 12. replaced call to java/lang/StringBuilder::append with receiver → KILLED
475
        13. Negated double field lower → KILLED

 Negated double field upper → KILLED

         15. Incremented (a++) double field lower → SURVIVED
         16. Incremented (a++) double field upper → SURVIVED
         17. Decremented (a--) double field lower → SURVIVED

 Decremented (a--) double field upper → SURVIVED

         19. Incremented (++a) double field lower → KILLED
         20. Incremented (++a) double field upper → KILLED
        21. Decremented (--a) double fieldlower → KILLED 22. Decremented (--a) double fieldupper → KILLED
```

## **Active mutators**

- ABS MUTATOR
- AOD\_1\_MUTATORAOD\_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\_MUTATORROR\_2\_MUTATOR
- ROR\_3\_MUTATORROR\_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.RangeTest v3.constrainTestOutsideRangeAbove(org.jfree.data.RangeTest v3) (2 ms)
- org., free.data.testA3.RangeTest v2.expandToIncludeNull(org., free.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullMedian (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (5 ms)
- org.jfree.chart.axis.DateAxisTest.testHashCode(org.jfree.chart.axis.DateAxisTest) (4 ms)
- org.jfree.chart.XYStepChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.XYStepChartTest) (1 ms)
- org.jfree.chart.axis.PeriodAxisTest.testSerialization(org.jfree.chart.axis.PeriodAxisTest) (19 ms)
- org.jfree.data.RangeTest v3.containsTestMax(org.jfree.data.RangeTest v3) (1 ms)
- org.jfree.chart.StackedBarChartTest.testReplaceDataset(org.jfree.chart.StackedBarChartTest) (2 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateToFindRangeBounds MultiValueCategoryDataset (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.chart.ScatterPlotTest.testDrawWithNullInfo(org.jfree.chart.ScatterPlotTest) (3 ms)
- org.jfree.chart.axis.ValueAxisTest.testEquals(org.jfree.chart.axis.ValueAxisTest) (1 ms)
- org.jfree.data.RangeTest\_v3.intersectsInIn(org.jfree.data.RangeTest\_v3) (0 ms)
- org., free.chart.plot.FastScatterPlotTest.testSerialization(org., free.chart.plot.FastScatterPlotTest) (4 ms)
- org.jfree.chart.plot.XYPlotTest.testRangeMarkerIndices(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.chart.plot.CategoryPlotTest.testAxisIndices(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.chart.BarChartTest.testReplaceDataset(org.jfree.chart.BarChartTest) (2 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testBug1572478Horizontal (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (14 ms)
- org.jfree.chart.LineChart3DTest.testSetSeriesURLGenerator(org.jfree.chart.LineChart3DTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testSerialization2(org.jfree.chart.plot.CategoryPlotTest) (173 ms)
- org.jfree.data.testA2.RangeTest.centralValueShouldBeNegative(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testAddValue (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (1 ms)
- org.jfree.data.testA3.RangeTest v2.ignoringnanSecondNull(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.axis.PeriodAxisTest.testCloning(org.jfree.chart.axis.PeriodAxisTest) (4 ms)
- org.jfree.chart.LineChartTest.testReplaceDataset(org.jfree.chart.LineChartTest) (1 ms)
- org.jfree.chart.BarChart3DTest.testSetSeriesURLGenerator(org.jfree.chart.BarChart3DTest) (3 ms)
- org.jfree.data.time.TimePeriodValuesCollectionTest.testGetDomainBoundsWithoutInterval (org.jfree.data.time.TimePeriodValuesCollectionTest) (0 ms)
- org.jfree.chart.renderer.category.BarRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.category.BarRendererTest) (0 ms)
- org.jfree.chart.TimeSeriesChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.TimeSeriesChartTest) (2 ms)
- org.jfree.chart.renderer.category.ScatterRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.ScatterRendererTest) (0 ms)
- org.jfree.chart.renderer.category.BarRendererTest.testGetLegendItem (org.jfree.chart.renderer.category.BarRendererTest) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testXYAutoRange1(org.jfree.chart.axis.NumberAxisTest) (6 ms)
- org.jfree.data.RangeTest\_v3.equalsTestForLowerRange(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.data.testA2.RangeTest.combineTestNoOverlap(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.XYLineChartTest.testReplaceDataset(org.jfree.chart.XYLineChartTest) (1 ms)
- org.jfree.chart.renderer.category.StatisticalLineAndShapeRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.StatisticalLineAndShapeRendererTest) (1 ms)
- org.jfree.chart.renderer.xy.StandardXYItemRendererTest.testNoDisplayedItem (org.jfree.chart.renderer.xy.StandardXYItemRendererTest) (2 ms)

- org.jfree.data.testA2.RangeTest.containsTestMax(org.jfree.data.testA2.RangeTest) (1 ms)
- org.jfree.chart.axis.CyclicNumberAxisTest.testHashCode(org.jfree.chart.axis.CyclicNumberAxisTest) (0 ms)
- org.jfree.chart.renderer.xy.XYBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.xy.XYBarRendererTest) (0 ms)
- org., free.data.testA3.RangeTest v2.constrainTestOnUpper(org., free.data.testA3.RangeTest v2) (0 ms)
- org, free.data.xy.XYSeriesCollectionTest.testGetDomainBounds(org, free.data.xy.XYSeriesCollectionTest) (0
- org.jfree.chart.plot.SpiderWebPlotTest.testDrawWithNullInfo(org.jfree.chart.plot.SpiderWebPlotTest) (3 ms)
- org.jfree.chart.ChartPanelTest.test2502355\_zoomInBoth(org.jfree.chart.ChartPanelTest) (15 ms)
- org.jfree.chart.ChartPanelTest.test2502355 restoreAutoDomainBounds(org.jfree.chart.ChartPanelTest) (9 ms)
- org.jfree.chart.WaterfallChartTest.testDrawWithNullInfo(org.jfree.chart.WaterfallChartTest) (2 ms)
- org.jfree.chart.TimeSeriesChartTest.testReplaceDataset(org.jfree.chart.TimeSeriesChartTest) (1 ms)
- org.jfree.chart.renderer.xy.XYLineAndShapeRendererTest.testFindDomainBounds (org.jfree.chart.renderer.xy.XYLineAndShapeRendererTest) (1 ms)
- org.jfree.chart.axis.SubCategoryAxisTest.test2275695(org.jfree.chart.axis.SubCategoryAxisTest) (6 ms)
- org.jfree.chart.axis.ValueAxisTest.testAxisMargins(org.jfree.chart.axis.ValueAxisTest) (1 ms)
- org.jfree.chart.plot.CombinedDomainXYPlotTest.testNotification (org.jfree.chart.plot.CombinedDomainXYPlotTest) (5 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateRangeBounds CategoryDataset (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testGetLegendItem (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testAxisLocationIndices(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.chart.plot.ThermometerPlotTest.testSerialization2(org.jfree.chart.plot.ThermometerPlotTest) (3 ms)
- org.jfree.data.RangeTest\_v3.expandToIncludeBelow(org.jfree.data.RangeTest\_v3) (0 ms)
- org. free.data.RangeTest\_v3.scaleNegativeFactor(org. free.data.RangeTest\_v3) (8 ms)
- org.jfree.chart.JFreeChartTest.testSerialization4(org.jfree.chart.JFreeChartTest) (175 ms)
- org.jfree.data.testA3.RangeTest\_v2.shiftWithZeroCrossing(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org., free.data.xy.DefaultOHLCDatasetTest.testDataRange(org., free.data.xy.DefaultOHLCDatasetTest) (0 ms)
- org.jfree.chart.axis.ColorBarTest.testHashCode(org.jfree.chart.axis.ColorBarTest) (1 ms)
- org.jfree.chart.renderer.xy.CandlestickRendererTest.testFindRangeBounds (org.jfree.chart.renderer.xy.CandlestickRendererTest) (1 ms)
- org.jfree.chart.renderer.xy.StackedXYAreaRendererTest.testFindRangeBounds (org.jfree.chart.renderer.xy.StackedXYAreaRendererTest) (0 ms)
- org.jfree.chart.GanttChartTest.testSetSeriesURLGenerator(org.jfree.chart.GanttChartTest) (6 ms)
- org.jfree.chart.renderer.xy.XYBarRendererTest.testFindDomainBounds2 (org.jfree.chart.renderer.xy.XYBarRendererTest) (1 ms)
- org.jfree.chart.block.GridArrangementTest.testGridNotFull FR(org.jfree.chart.block.GridArrangementTest) (0
- org.jfree.chart.renderer.category.StatisticalBarRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.StatisticalBarRendererTest) (5 ms)
- org.jfree.chart.axis.ModuloAxisTest.testCloning(org.jfree.chart.axis.ModuloAxisTest) (1 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest.testAddUpdatesCachedRange (org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.scalePositiveFactor(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.shiftWithNoZeroCrossingWithZeroValues
- (org.jfree.data.testA3.RangeTest\_v2) (0 ms)
   org.jfree.chart.renderer.xy.ClusteredXYBarRendererTest.testFindDomainBounds (org.jfree.chart.renderer.xy.ClusteredXYBarRendererTest) (0 ms)
- org.jfree.chart.plot.PolarPlotTest.testTranslateToJava2D\_NumberAxisAndMargin (org.jfree.chart.plot.PolarPlotTest) (1 ms)
- org.jfree.chart.XYAreaChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.XYAreaChartTest) (3 ms)
- org.jfree.chart.AreaChartTest.testDrawWithNullInfo(org.jfree.chart.AreaChartTest) (487 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateToFindRangeBounds2 XYDataset (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- $\bullet \ org. j free.chart.block. Rectangle Constraint Test. test Calculate Constrained Size$ (org.jfree.chart.block.RectangleConstraintTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindDomainBounds NaN (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testSerialization4(org.jfree.chart.plot.CategoryPlotTest) (12 ms)
- org.jfree.data.RangeTest.testExpand(org.jfree.data.RangeTest) (0 ms)
- org, free.data.general.DatasetUtilitiesTest.testCumulativeRange NaN(org, free.data.general.DatasetUtilitiesTest) (0 ms)
- org., free.data.testA3.RangeTest v2.containsTestForInBetweenBounds(org., free.data.testA3.RangeTest v2) (0
- org.jfree.chart.renderer.category.MinMaxCategoryRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.MinMaxCategoryRendererTest) (4 ms)

- org.jfree.chart.axis.NumberAxis3DTest.testSerialization(org.jfree.chart.axis.NumberAxis3DTest) (4 ms)
- org.jfree.chart.renderer.xy.XYStepRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.xy.XYStepRendererTest) (3 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testGetValue (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (0 ms)
- org.jfree.chart.plot.CombinedDomainCategoryPlotTest.testCloning (org.jfree.chart.plot.CombinedDomainCategoryPlotTest) (2 ms)
- org.jfree.data.RangeTest\_v3.centralValueShouldBeNegative(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.chart.axis.ModuloAxisTest.testEquals(org.jfree.chart.axis.ModuloAxisTest) (0 ms)
- org.jfree.data.RangeTest\_v3.shiftWithZeroCrossing(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.renderer.xy.HighLowRendererTest.testFindRangeBounds (org.jfree.chart.renderer.xy.HighLowRendererTest) (0 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testCloning (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (0 ms)
- org.jfree.chart.axis.ColorBarTest.testCloning(org.jfree.chart.axis.ColorBarTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.shiftWithNoZeroCrossingWithValuesAboveZero (org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.renderer.xy.XYDotRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.XYDotRendererTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.equalsFalseForNonRange(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.data.RangeTest\_v3.constrainTestMiddleOfRange(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.expandToIncludeBelow(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testBug2849731\_2(org.jfree.data.general.DatasetUtilitiesTest) (2 ms)
- org.jfree.chart.LineChart3DTest.testReplaceDataset(org.jfree.chart.LineChart3DTest) (1 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest.testEquals (org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest) (1 ms)
- org.jfree.chart.renderer.category.StackedBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.StackedBarRendererTest) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testSerialization4(org.jfree.chart.plot.XYPlotTest) (46 ms)
- org.jfree.data.RangeTest\_v3.containsTestForMoreThanUpperBound(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.data.RangeTest.testConstrain(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullQ3 (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (3 ms)
- org.jfree.chart.GanttChartTest.testDrawWithNullInfo(org.jfree.chart.GanttChartTest) (9 ms)
- org.jfree.chart.BarChart3DTest.testDrawWithNullInfo(org.jfree.chart.BarChart3DTest) (8 ms)
- org.jfree.chart.renderer.xy.XYBarRendererTest.testFindDomainBounds (org.jfree.chart.renderer.xy.XYBarRendererTest) (1 ms)
- org.jfree.chart.block.BorderArrangementTest.testBugX(org.jfree.chart.block.BorderArrangementTest) (0 ms)
- org.jfree.chart.plot.MeterIntervalTest.testEquals(org.jfree.chart.plot.MeterIntervalTest) (0 ms)
- org.jfree.data.RangeTest.testCombine(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.XYStepAreaChartTest.testReplaceDataset(org.jfree.chart.XYStepAreaChartTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.combineWithOneNanUpper(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateDomainBounds\_NaN2 (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.data.testA2.RangeTest.constrainTestOutsideRangeAbove(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.RangeTest\_v3.CombineIgnoringNaNBothNULL(org.jfree.data.RangeTest\_v3) (4 ms)
- org.jfree.data.RangeTest\_v3.combineTestIntersect(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testGetRangeAxisForDataset(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.data.RangeTest\_v3.constrainTestOutsideRangeBelow(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.axis.LogAxisTest.testAutoRange1(org.jfree.chart.axis.LogAxisTest) (3 ms)
- org.jfree.data.RangeTest v3.combineWithOneNanLower(org.jfree.data.RangeTest v3) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testCloning(org.jfree.chart.axis.NumberAxisTest) (0 ms)
- org.jfree.data.testA2.RangeTest.constrainTestOnMin(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.BarChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.BarChartTest) (17 ms)
- org.jfree.chart.plot.XYPlotTest.testRendererIndices(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org.jfree.chart.BarChart3DTest.testReplaceDataset(org.jfree.chart.BarChart3DTest) (3 ms)
- org.jfree.chart.block.GridArrangementTest.testNullBlock FR(org.jfree.chart.block.GridArrangementTest) (0 ms)
- org.jfree.data.RangeTest.testHashCode(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.renderer.category.StatisticalBarRendererTest.testDrawWithNullMeanVertical (org.jfree.chart.renderer.category.StatisticalBarRendererTest) (3 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindStackedRangeBounds\_CategoryDataset3 (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.plot.FastScatterPlotTest.testDrawWithNullInfo(org.jfree.chart.plot.FastScatterPlotTest) (6 ms)
- org.jfree.chart.plot.CombinedDomainCategoryPlotTest.testNotification (org.jfree.chart.plot.CombinedDomainCategoryPlotTest) (14 ms)
- org.jfree.chart.plot.MeterPlotTest.testCloning(org.jfree.chart.plot.MeterPlotTest) (0 ms)
- org.jfree.chart.axis.SymbolAxisTest.testEquals(org.jfree.chart.axis.SymbolAxisTest) (1 ms)

- org.jfree.data.testA3.RangeTest\_v2.intersectsOutOutLowHigh(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindStackedRangeBoundsForTableXYDataset2 (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.StackedAreaChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.StackedAreaChartTest) (1
- org.jfree.chart.renderer.xy.StandardXYItemRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.StandardXYItemRendererTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testSerialization(org.jfree.chart.axis.DateAxisTest) (32 ms)
- org.jfree.chart.plot.CategoryPlotTest.testRendererIndices(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testEquals ObjectList3(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.data.RangeTest\_v3.expandEqual(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.RangeTest v3.equalsTestForHigherRange(org.jfree.data.RangeTest v3) (3 ms)
- org.jfree.chart.renderer.xy.XYBarRendererTest.testFindRangeBounds2 (org.jfree.chart.renderer.xy.XYBarRendererTest) (0 ms)
- org.jfree.chart.renderer.category.StatisticalLineAndShapeRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.StatisticalLineAndShapeRendererTest) (2 ms)
- org.jfree.chart.plot.CombinedDomainXYPlotTest.testSerialization (org.jfree.chart.plot.CombinedDomainXYPlotTest) (43 ms)
- org.jfree.chart.plot.XYPlotTest.testCloneIndependence(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.data.testA2.RangeTest.constrainTestOutsideRangeBelow(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindDomainBounds(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.chart.axis.DateAxisTest.testSetRange(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.chart.axis.DateAxisTest.testCloning(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.centralValueShouldBePositive(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org. ffree.chart.ChartPanelTest.test2502355 zoom(org. ffree.chart.ChartPanelTest) (12 ms)
- org.jfree.chart.axis.DateAxisTest.testSetMinimumDate(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindMinimumDomainValue (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.data.RangeTest\_v3.intersectsOutOutLowHigh(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testBug2849731(org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.data.RangeTest.testIsNaNRange(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateSecondB(org.jfree.chart.axis.DateAxisTest) (4 ms)
- org.jfree.chart.axis.ValueAxisTest.test3555275(org.jfree.chart.axis.ValueAxisTest) (10 ms)
- org.jfree.chart.plot.XYPlotTest.testSerialization5(org.jfree.chart.plot.XYPlotTest) (9 ms)
- org.jfree.chart.XYAreaChartTest.testDrawWithNullInfo(org.jfree.chart.XYAreaChartTest) (5 ms)
- org.jfree.chart.BarChartTest.testDrawWithNullInfo(org.jfree.chart.BarChartTest) (6 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullMaxOutlier (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (5 ms)
- $\bullet \ \ org.j free.chart.plot. Thermometer Plot Test. test Equals (org.j free.chart.plot. Thermometer Plot Test) \ (0 \ ms)$
- org.jfree.chart.XYStepAreaChartTest.testDrawWithNullInfo(org.jfree.chart.XYStepAreaChartTest) (4 ms)
- org.jfree.chart.renderer.category.StatisticalBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.StatisticalBarRendererTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.ignoringnanBothNull(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.axis.NumberAxisTest.testEquals(org.jfree.chart.axis.NumberAxisTest) (2 ms)
- org.jfree.data.RangeTest.testCombineIgnoringNaN(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.StackedBarChart3DTest.testDrawWithNullInfo(org.jfree.chart.StackedBarChart3DTest) (8 ms)
- org.jfree.chart.plot.CategoryPlotTest.testSerialization5(org.jfree.chart.plot.CategoryPlotTest) (18 ms)
   org.jfree.chart.XYLineChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.XYLineChartTest) (1 ms)
- org.jfree.chart.plot.CategoryPlotTest.testMapDatasetToDomainAxis(org.jfree.chart.plot.CategoryPlotTest) (4 ms)
- org., free.chart.plot.CategoryPlotTest.testGetRangeAxisForDataset(org., free.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.scaleNegativeFactor(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.XYAreaChartTest.testReplaceDataset(org.jfree.chart.XYAreaChartTest) (5 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateRangeBounds3(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.chart.plot.CategoryPlotTest.test1654215(org.jfree.chart.plot.CategoryPlotTest) (2 ms)
- org.jfree.data.testA3.RangeTest v2.constrainTestOnLower(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullMinOutlier (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (4 ms)
- org.jfree.data.time.DateRangeTest.testSerialization(org.jfree.data.time.DateRangeTest) (0 ms)
- org.jfree.chart.plot.FastScatterPlotTest.testEquals(org.jfree.chart.plot.FastScatterPlotTest) (0 ms)
- org.jfree.data.testA2.RangeTest.combineTestIntersect(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.constrainTestOnMin(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org, free.data.RangeTest v3.ignoringnanFirstNaNSecondNull(org, free.data.RangeTest v3) (4 ms)
- org, ffree.chart.axis.LogarithmicAxisTest.testSerialization(org, ffree.chart.axis.LogarithmicAxisTest) (3 ms)

- org.jfree.data.RangeTest v3.shiftWithNoZeroCrossingWithValuesAboveZero(org.jfree.data.RangeTest v3) (0 ms)
- org.jfree.data.testA2.RangeTest.containsTestForMoreThanUpperBound(org.jfree.data.testA2.RangeTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.ignoringnanFirstNullSecondNaN(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testAxisIndices(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.data.time.TimeSeriesCollectionTest.testGetRangeBounds2
- (org.jfree.data.time.TimeSeriesCollectionTest) (0 ms) • org.jfree.chart.plot.CombinedDomainXYPlotTest.testRemoveSubplot
- (org.jfree.chart.plot.CombinedDomainXYPlotTest) (0 ms) org.jfree.chart.annotations.XYTitleAnnotationTest.testDrawWithNullInfo
- (org.jfree.chart.annotations.XYTitleAnnotationTest) (19 ms) org.jfree.data.testA2.RangeTest.equalsTestForSameRange(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.renderer.category.IntervalBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.IntervalBarRendererTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateYearB(org.jfree.chart.axis.DateAxisTest) (23 ms)
- org.jfree.chart.plot.XYPlotTest.testSerialization1(org.jfree.chart.plot.XYPlotTest) (4 ms)
- org.jfree.data.testA3.RangeTest\_v2.intersectsInOut(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.chart.axis.DateAxisTest.testEquals(org.jfree.chart.axis.DateAxisTest) (46 ms)
- org.jfree.chart.axis.DateAxisTest.testBug2201869(org.jfree.chart.axis.DateAxisTest) (8 ms)
   org.jfree.chart.axis.DateAxisTest.test1472942(org.jfree.chart.axis.DateAxisTest) (2 ms)
- org.jfree.chart.plot.XYPlotTest.testGetRendererForDataset2(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org.jfree.chart.axis.LogAxisTest.testAutoRange3(org.jfree.chart.axis.LogAxisTest) (0 ms)
- org.jfree.chart.renderer.category.LevelRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.category.LevelRendererTest) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testCumulativeRange3(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.data.RangeTest v3.containsTestForLessThanLowerBound(org.jfree.data.RangeTest v3) (3 ms)
- org. free.data.general.DatasetUtilitiesTest.testIterateRangeBounds2(org. free.data.general.DatasetUtilitiesTest) (0
- org.jfree.chart.ChartPanelTest.test2502355\_zoomOutRange(org.jfree.chart.ChartPanelTest) (8 ms)
- org.jfree.data.testA2.RangeTest.equalsTestForLowerRange(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testEquals\_ObjectList(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org.jfree.chart.axis.NumberAxisTest.testAutoRange2(org.jfree.chart.axis.NumberAxisTest) (2 ms)
- org.jfree.chart.ChartPanelTest.test2502355\_zoomOutDomain(org.jfree.chart.ChartPanelTest) (3 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateDomainBounds NaN (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.renderer.category.StatisticalBarRendererTest.testDrawWithNullMeanHorizontal (org.jfree.chart.renderer.category.StatisticalBarRendererTest) (4 ms)
- org.jfree.chart.renderer.xy.XYBoxAndWhiskerRendererTest.test2909215 (org.jfree.chart.renderer.xy.XYBoxAndWhiskerRendererTest) (3 ms)
- org.jfree.data.testA3.RangeTest\_v2.constrainTestOnMax(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.renderer.category.LineAndShapeRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.category.LineAndShapeRendererTest) (0 ms)
- org.jfree.chart.axis.CyclicNumberAxisTest.testCloning(org.jfree.chart.axis.CyclicNumberAxisTest) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testDatasetIndices(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org. free.chart.plot.ThermometerPlotTest.testSetUnits(org. free.chart.plot.ThermometerPlotTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.ignoringnanIntersecting(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.intersectsOutOutHigh(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.XYBarChartTest.testReplaceDataset(org.jfree.chart.XYBarChartTest) (1 ms)
- org.jfree.chart.axis.LogAxisTest.testHashCode(org.jfree.chart.axis.LogAxisTest) (3 ms)
   org.jfree.data.testA2.RangeTest.containsTestForOnUpperBound(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.renderer.category.CategoryStepRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.category.CategoryStepRendererTest) (0 ms)
- · org.jfree.data.general.DatasetUtilitiesTest.testIterateToFindRangeBounds StatisticalCategoryDataset (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- $\bullet \ \ org.j free.chart.renderer.category. Box And Whisker Renderer Test. test Draw With Null Max Regular test. The state of the state$ (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (4 ms)
- org.jfree.data.testA3.RangeTest v2.getLengthSameValues(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org. jfree.data.RangeTest v3.expandToIncludeAbove(org. jfree.data.RangeTest v3) (0 ms)
- org. free.data.general.DatasetUtilitiesTest.testIterateRangeBounds3 CategoryDataset (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.chart.title.PaintScaleLegendTest.testEquals(org.jfree.chart.title.PaintScaleLegendTest) (1 ms)
- org.jfree.data.RangeTest\_v3.containsTestMin(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testEquals(org.jfree.chart.plot.CategoryPlotTest) (21 ms)
- org.jfree.chart.renderer.category.StatisticalBarRendererTest.testDrawWithNullDeviationVertical (org.jfree.chart.renderer.category.StatisticalBarRendererTest) (3 ms)
- org.jfree.chart.axis.PeriodAxisTest.test2490803(org.jfree.chart.axis.PeriodAxisTest) (3 ms)

- org.jfree.data.testA3.RangeTest\_v2.combineWithOneNanLower(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.GanttChartTest.testReplaceDataset(org.jfree.chart.GanttChartTest) (2 ms)
- org.jfree.data.RangeTest\_v3.combineTestNoOverlap(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.getUpperBoundTest(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.data.RangeTest\_v3.scalePositiveFactor(org.jfree.data.RangeTest\_v3) (0 ms)
   org.jfree.chart.StackedAreaChartTest.testDrawWithNullInfo(org.jfree.chart.StackedAreaChartTest) (6 ms)
- org.jfree.data.RangeTest v3.containsTestForOnUpperBound(org.jfree.data.RangeTest v3) (0 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testGetValue2 (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (0 ms)
- org.jfree.chart.axis.ModuloAxisTest.testHashCode(org.jfree.chart.axis.ModuloAxisTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.containsTestMin(org.jfree.data.testA3.RangeTest\_v2) (17 ms)
- org., free.chart.plot.CombinedDomainXYPlotTest.testCloning(org., free.chart.plot.CombinedDomainXYPlotTest)
- org.jfree.chart.renderer.category.StackedAreaRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.StackedAreaRendererTest) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindRangeBounds(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.data.RangeTest\_v3.ignoringnanBothNaN(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.containsTestMax(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.RangeTest\_v3.expandToIncludeNull(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateYearA(org.jfree.chart.axis.DateAxisTest) (2 ms)
- org.jfree.chart.plot.PolarPlotTest.testEquals(org.jfree.chart.plot.PolarPlotTest) (1 ms)
- org.jfree.chart.axis.PeriodAxisTest.testHashCode(org.jfree.chart.axis.PeriodAxisTest) (1 ms)
- org.jfree.chart.renderer.xy.StackedXYBarRendererTest.testFindDomainBounds (org.jfree.chart.renderer.xy.StackedXYBarRendererTest) (0 ms)
- org.jfree.data.RangeTest v3.intersectsOutOutHigh(org.jfree.data.RangeTest v3) (1 ms)
- org.jfree.data.testA3.RangeTest v2.shiftBasicValue(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org. free.data.general.DatasetUtilitiesTest.testIterateRangeBounds2 CategoryDataset (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.ignoringnanBothNaN(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testMapDatasetToRangeAxis(org.jfree.chart.plot.CategoryPlotTest) (1 ms)
- $\bullet \ \ org.j free.chart.renderer.xy. XYLine And Shape Renderer Test.test Find Range Bounds$ (org.jfree.chart.renderer.xy.XYLineAndShapeRendererTest) (16 ms)
- org.jfree.data.RangeTest\_v3.shiftWithNoZeroCrossingWithZeroValues(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.data.time.DateRangeTest.testEquals(org.jfree.data.time.DateRangeTest) (0 ms)
   org.jfree.chart.axis.LogarithmicAxisTest.testJava2DToValue(org.jfree.chart.axis.LogarithmicAxisTest) (1 ms)
- org.jfree.chart.LineChart3DTest.testSetSeriesToolTipGenerator(org.jfree.chart.LineChart3DTest) (2 ms)
- org.jfree.data.testA3.RangeTest v2.containsTestForOnLowerBound(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.plot.CombinedRangeCategoryPlotTest.testEquals (org.jfree.chart.plot.CombinedRangeCategoryPlotTest) (3 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateSecondA(org.jfree.chart.axis.DateAxisTest) (2 ms)
- org.jfree.chart.plot.CombinedRangeCategoryPlotTest.testRemoveSubplot (org.jfree.chart.plot.CombinedRangeCategoryPlotTest) (1 ms)
- org.jfree.chart.AreaChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.AreaChartTest) (4 ms)
- org.jfree.data.testA3.RangeTest\_v2.intersectsOutOutLow(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.xy.XYSeriesCollectionTest.testBug3445507(org.jfree.data.xy.XYSeriesCollectionTest) (1 ms)
- org. jfree.chart.LineChartTest.testSetSeriesURLGenerator(org. jfree.chart.LineChartTest) (2 ms)
- org.jfree.data.time.TimeSeriesCollectionTest.testGetRangeBounds(org.jfree.data.time.TimeSeriesCollectionTest)
- org.jfree.chart.axis.LogAxisTest.testXYAutoRange2(org.jfree.chart.axis.LogAxisTest) (2 ms)
- org.jfree.data.testA2.RangeTest.containsTestForInBetweenBounds(org.jfree.data.testA2.RangeTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.intersectsInIn(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testDatasetIndices(org.jfree.chart.plot.CategoryPlotTest) (1 ms)
- org.jfree.data.RangeTest\_v3.constrainTestOnMax(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindStackedRangeBoundsForTableXYDataset1 (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullMinRegular (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (6 ms)
- org.jfree.chart.StackedAreaChartTest.testSetSeriesURLGenerator(org.jfree.chart.StackedAreaChartTest) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testHashCode(org.jfree.chart.axis.NumberAxisTest) (1 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest.testSerialization (org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest) (2 ms)
- org.jfree.data.testA3.RangeTest\_v2.expandEqual(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.RangeTest\_v3.ignoringnanFirstNullSecondNaN(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.testA3.RangeTest v2.combineTestNoOverlap(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindDomainBounds3(org.jfree.data.general.DatasetUtilitiesTest) (1 ms)

- org.jfree.chart.XYStepChartTest.testDrawWithNullInfo(org.jfree.chart.XYStepChartTest) (2 ms)
- org.jfree.data.RangeTest\_v3.equalsFalseForNonRange(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.title.PaintScaleLegendTest.testCloning(org.jfree.chart.title.PaintScaleLegendTest) (0 ms)
- org.jfree.data.time.TimeSeriesCollectionTest.testBug3445507(org.jfree.data.time.TimeSeriesCollectionTest) (0
- org.jfree.chart.axis.NumberAxisTest.testTranslateJava2DToValue(org.jfree.chart.axis.NumberAxisTest) (1 ms)
- org.jfree.chart.XYStepChartTest.testReplaceDataset(org.jfree.chart.XYStepChartTest) (1 ms)
- org.jfree.chart.plot.CombinedRangeCategoryPlotTest.testNotification (org.jfree.chart.plot.CombinedRangeCategoryPlotTest) (29 ms)
- org.jfree.chart.title.PaintScaleLegendTest.testSerialization(org.jfree.chart.title.PaintScaleLegendTest) (3 ms)
- org.jfree.chart.AreaChartTest.testSetSeriesURLGenerator(org.jfree.chart.AreaChartTest) (1 ms)
- org.jfree.chart.WaterfallChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.WaterfallChartTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.constrainTestOutsideRangeAbove(org.jfree.data.testA3.RangeTest v2) (1
- org.jfree.chart.axis.ModuloAxisTest.testSerialization(org.jfree.chart.axis.ModuloAxisTest) (18 ms)
- org. free.data.testA2.RangeTest.constrainTestOnMax(org. free.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.axis.LogAxisTest.testCloning(org.jfree.chart.axis.LogAxisTest) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testMapDatasetToRangeAxis(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testStackedRangeWithMap(org.jfree.data.general.DatasetUtilitiesTest)
- org.jfree.data.time.DateRangeTest.testClone(org.jfree.data.time.DateRangeTest) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testAutoRange4(org.jfree.chart.axis.NumberAxisTest) (0 ms)
- org.jfree.chart.plot.CombinedRangeXYPlotTest.testEquals(org.jfree.chart.plot.CombinedRangeXYPlotTest) (5
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullQ1 (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (4 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testCumulativeRange1(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.data.RangeTest v3.getLengthSameValues(org.jfree.data.RangeTest v3) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.ignoringnanLowerNan(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.chart.BarChart3DTest.testSetSeriesToolTipGenerator(org.jfree.chart.BarChart3DTest) (5 ms)
- org.jfree.chart.plot.XYPlotTest.testSerialization2(org.jfree.chart.plot.XYPlotTest) (12 ms)
   org.jfree.data.RangeTest\_v3.centralValueShouldBeZero(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (17 ms)
- org. jfree.chart.plot.PolarPlotTest.testCloning(org. jfree.chart.plot.PolarPlotTest) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindMaximumDomainValue (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.data.RangeTest\_v3.switchedInputToConstructor(org.jfree.data.RangeTest\_v3) (1 ms)
   org.jfree.chart.plot.CategoryPlotTest.test1169972(org.jfree.chart.plot.CategoryPlotTest) (1 ms)
- org.jfree.data.RangeTest\_v3.constrainTestOnMin(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.chart.renderer.xy.StackedXYAreaRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.xy.StackedXYAreaRendererTest) (44 ms)
- org.jfree.chart.XYStepAreaChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.XYStepAreaChartTest) (1
- org.jfree.chart.XYBarChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.XYBarChartTest) (1 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest.testGetRangeBounds (org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testSerialization3(org.jfree.chart.plot.CategoryPlotTest) (17 ms)
- org.jfree.chart.ChartPanelTest.test2502355\_restoreAutoRangeBounds(org.jfree.chart.ChartPanelTest) (6 ms)
   org.jfree.chart.plot.PiePlot3DTest.testDrawWithNullDataset(org.jfree.chart.plot.PiePlot3DTest) (1 ms)
- org.jfree.data.time.TimeSeriesCollectionTest.testFindDomainBounds (org.jfree.data.time.TimeSeriesCollectionTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindRangeBounds CategoryDataset (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.chart.plot.CategoryPlotTest.testGetRendererForDataset2(org.jfree.chart.plot.CategoryPlotTest) (6 ms)
- org.jfree.data.time.TimeSeriesTest.testFindValueRange2(org.jfree.data.time.TimeSeriesTest) (0 ms)
- org.jfree.data.testA2.RangeTest.containsTestForOnLowerBound(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.ChartPanelTest.test2502355 restoreAutoBounds(org.jfree.chart.ChartPanelTest) (98 ms)
- $\bullet \ org.j free. data. statistics. Default Multi Value \overline{C} ategory Dataset Test. test Get Row Count$ (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (0 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest.testCloning (org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.containsTestForLessThanLowerBound(org.jfree.data.testA3.RangeTest v2)
- org.jfree.chart.ScatterPlotTest.testReplaceDataset(org.jfree.chart.ScatterPlotTest) (2 ms)

- org.jfree.chart.renderer.AbstractRendererTest.testOutlinePaintLookup (org.jfree.chart.renderer.AbstractRendererTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testGetDomainAxisForDataset(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.chart.MeterChartTest.testDrawWithNullInfo(org.jfree.chart.MeterChartTest) (17 ms)
- org.jfree.chart.GanttChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.GanttChartTest) (9 ms)
- org.jfree.chart.XYBarChartTest.testDrawWithNullInfo(org.jfree.chart.XYBarChartTest) (5 ms)
- org.jfree.data.testA3.RangeTest\_v2.shiftWithNoZeroCrossingWithValuesBelowZero (org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.chart.plot.CombinedRangeCategoryPlotTest.testCloning (org.jfree.chart.plot.CombinedRangeCategoryPlotTest) (5 ms)
- org.jfree.data.RangeTest v3.ignoringnanLowerNan(org.jfree.data.RangeTest v3) (1 ms)
- org.jfree.chart.renderer.xy.StackedXYAreaRendererTest.testBug1593156 (org.jfree.chart.renderer.xy.StackedXYAreaRendererTest) (5 ms)
- org.jfree.chart.axis.LogAxisTest.testSerialization(org.jfree.chart.axis.LogAxisTest) (7 ms)
- org.jfree.chart.ChartPanelTest.test2502355 zoomInDomain(org.jfree.chart.ChartPanelTest) (11 ms)
- org.jfree.chart.renderer.AbstractRendererTest.testFillPaintLookup(org.jfree.chart.renderer.AbstractRendererTest)
- org.jfree.chart.ChartPanelTest.testSetMouseWheelEnabled(org.jfree.chart.ChartPanelTest) (6 ms)
- org.jfree.data.testA2.RangeTest.combineTestNull(org.jfree.data.testA2.RangeTest) (1 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest.testRemove (org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateToFindRangeBounds BoxAndWhiskerXYDataset (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.BarChartTest.testSetSeriesURLGenerator(org.jfree.chart.BarChartTest) (2 ms)
- org.jfree.chart.JFreeChartTest.testSerialization3(org.jfree.chart.JFreeChartTest) (57 ms)
- org.jfree.chart.plot.MeterIntervalTest.testCloning(org.jfree.chart.plot.MeterIntervalTest) (0 ms)
- org.jfree.chart.renderer.category.StackedBarRenderer3DTest.testFindRangeBounds (org.jfree.chart.renderer.category.StackedBarRenderer3DTest) (1 ms)
- org.jfree.chart.StackedBarChart3DTest.testReplaceDataset(org.jfree.chart.StackedBarChart3DTest) (2 ms)
- org.jfree.data.testA3.RangeTest\_v2.centralValueShouldBeNegative(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testCloning3(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.chart.plot.CombinedDomainCategoryPlotTest.testEquals (org.jfree.chart.plot.CombinedDomainCategoryPlotTest) (3 ms)
- org.jfree.chart.plot.XYPlotTest.testCloning2(org.jfree.chart.plot.XYPlotTest) (1 ms)
   org.jfree.chart.LineChart3DTest.testDrawWithNullInfo(org.jfree.chart.LineChart3DTest) (3 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest.testGetRangeBounds (org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateMillisecondB(org.jfree.chart.axis.DateAxisTest) (1
- org.jfree.chart.plot.CategoryPlotTest.testGetRangeAxisIndex(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
- org.jfree.data.RangeTest v3.ignoringnanBothNull(org.jfree.data.RangeTest v3) (0 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testGetColumnCount (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.expandToIncludeAbove(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.block.GridArrangementTest.testRN(org.jfree.chart.block.GridArrangementTest) (1 ms)
- org.jfree.chart.plot.MeterPlotTest.testSerialization2(org.jfree.chart.plot.MeterPlotTest) (2 ms)
- org. free.data.RangeTest v3.equalsTestForSameRange(org. free.data.RangeTest v3) (0 ms)
- org.jfree.chart.plot.CombinedRangeXYPlotTest.testNotification(org.jfree.chart.plot.CombinedRangeXYPlotTest)
- org.jfree.chart.LineChartTest.testDrawWithNullInfo(org.jfree.chart.LineChartTest) (6 ms)
- org.jfree.chart.renderer.category.AbstractCategoryItemRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.AbstractCategoryItemRendererTest) (1 ms)
- org.jfree.chart.plot.CombinedRangeCategoryPlotTest.testSerialization
- (org.jfree.chart.plot.CombinedRangeCategoryPlotTest) (13 ms)
- org.jfree.chart.axis.ColorBarTest.testEquals(org.jfree.chart.axis.ColorBarTest) (1 ms)
- org.jfree.data.RangeTest v3.ignoringnanIntersecting(org.jfree.data.RangeTest v3) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateMillisecondA(org.jfree.chart.axis.DateAxisTest) (1
- org.jfree.chart.StackedBarChart3DTest.testSetSeriesToolTipGenerator(org.jfree.chart.StackedBarChart3DTest)
- org.jfree.chart.plot.CombinedDomainXYPlotTest.testEquals(org.jfree.chart.plot.CombinedDomainXYPlotTest)
- org.jfree.data.RangeTest\_v3.containsTestForInBetweenBounds(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.ignoringnanFirstNaNSecondNull(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
   org.jfree.data.RangeTest\_testScale(org.jfree.data.RangeTest) (1 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testSerialization (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (1 ms)

- org.jfree.chart.renderer.xy.XYBlockRendererTest.testFindDomainBounds (org.jfree.chart.renderer.xy.XYBlockRendererTest) (1 ms)
- org.jfree.chart.renderer.xy.StackedXYAreaRenderer2Test.testFindRangeBounds (org.jfree.chart.renderer.xy.StackedXYAreaRenderer2Test) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testDrawRangeGridlines(org.jfree.chart.plot.XYPlotTest) (4 ms)
- org.jfree.data.testA2.RangeTest.centralValueShouldBeZero(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.containsTestForOnUpperBound(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindDomainBounds2(org.jfree.data.general.DatasetUtilitiesTest) (6
- org.jfree.data.testA2.RangeTest.equalsTestForHigherRange(org.jfree.data.testA2.RangeTest) (0 ms)
- org. free.chart.GanttChartTest.testDrawWithNullInfo2(org. free.chart.GanttChartTest) (39 ms)
- org.jfree.data.RangeTest.testShift(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateDayB(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.chart.axis.LogAxisTest.testRefreshTicksWithZeroTickUnit(org.jfree.chart.axis.LogAxisTest) (77 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateToFindRangeBounds1 XYDataset (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.data.RangeTest\_v3.intersectsOutIn(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.axis.SymbolAxisTest.testSerialization(org.jfree.chart.axis.SymbolAxisTest) (3 ms)
- org., free.chart.axis.ColorBarTest.testSerialization(org., free.chart.axis.ColorBarTest) (3 ms)
- org.jfree.data.RangeTest.testEquals(org.jfree.data.RangeTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.ignoringnanFirstNull(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.renderer.xy.XYDifferenceRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.XYDifferenceRendererTest) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testCumulativeRange2(org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org,jfree.data.time.TimePeriodValuesCollectionTest.testGetDomainBoundsWithInterval (org.jfree.data.time.TimePeriodValuesCollectionTest) (0 ms)
- org.jfree.chart.plot.ThermometerPlotTest.testCloning(org.jfree.chart.plot.ThermometerPlotTest) (1 ms)
- org.jfree.chart.renderer.category.GroupedStackedBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.GroupedStackedBarRendererTest) (0 ms)
- org.jfree.data.RangeTest\_v3.getLowerBoundTest(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testRangeMarkerIndices(org.jfree.chart.plot.CategoryPlotTest) (2 ms)
- org., free.chart.XYLineChartTest.testDrawWithNullInfo(org., free.chart.XYLineChartTest) (2 ms)
- org.jfree.chart.axis.PeriodAxisTest.testEquals(org.jfree.chart.axis.PeriodAxisTest) (1 ms)
- org.jfree.chart.axis.SymbolAxisTest.testCloning(org.jfree.chart.axis.SymbolAxisTest) (0 ms)
   org.jfree.chart.axis.LogAxisTest.testTranslateJava2DToValue(org.jfree.chart.axis.LogAxisTest) (1 ms)
- org., free.data.testA3.RangeTest v2.containsTestForMoreThanUpperBound(org., free.data.testA3.RangeTest v2)
- org.jfree.chart.plot.MeterPlotTest.testEquals(org.jfree.chart.plot.MeterPlotTest) (1 ms)
- org.jfree.chart.plot.ThermometerPlotTest.testSerialization(org.jfree.chart.plot.ThermometerPlotTest) (3 ms)
- org.jfree.chart.axis.CyclicNumberAxisTest.testEquals(org.jfree.chart.axis.CyclicNumberAxisTest) (1 ms)
- org.jfree.data.RangeTest v3.shiftWithNoZeroCrossingWithValuesBelowZero(org.jfree.data.RangeTest v3) (1
- org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest.testGetRangeBounds (org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest) (0 ms)
- org.jfree.chart.renderer.xy.XYStepAreaRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.xy.XYStepAreaRendererTest) (5 ms)
- org.jfree.chart.plot.CategoryPlotTest.testGetDomainAxisIndex(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
   org.jfree.data.RangeTest\_v3.combineTestInput1IsNull(org.jfree.data.RangeTest\_v3) (1 ms)

- org.jfree.chart.title.PaintScaleLegendTest.testHashcode(org.jfree.chart.title.PaintScaleLegendTest) (0 ms)
   org.jfree.data.testA3.RangeTest\_v2.centralValueShouldBeZero(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testBug2849731 3(org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testAutoRange3(org.jfree.chart.axis.NumberAxisTest) (3 ms)
- org.jfree.chart.axis.LogAxisTest.testTickMarksVisibleDefault(org.jfree.chart.axis.LogAxisTest) (0 ms)
- org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest.testEquals (org.jfree.data.statistics.DefaultMultiValueCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.RangeTest v2.expandLowerBecomesBigger(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.renderer.xy.StackedXYAreaRenderer2Test.testDrawWithEmptyDataset (org.jfree.chart.renderer.xy.StackedXYAreaRenderer2Test) (2 ms)
- org.jfree.data.RangeTest.testContains(org.jfree.data.RangeTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateDayA(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.chart.axis.LogAxisTest.testEquals(org.jfree.chart.axis.LogAxisTest) (1 ms)
- org.jfree.data.testA2.RangeTest.getUpperBoundTest(org.jfree.data.testA2.RangeTest) (0 ms)
   org.jfree.chart.plot.CombinedRangeXYPlotTest.testCloning(org.jfree.chart.plot.CombinedRangeXYPlotTest) (7
- org.jfree.chart.renderer.xy.XYAreaRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.xy.XYAreaRendererTest) (9 ms)

- org.jfree.chart.plot.PolarPlotTest.testTranslateToJava2D\_LogAxis(org.jfree.chart.plot.PolarPlotTest) (0 ms)
- org.jfree.chart.axis.LogarithmicAxisTest.testSwitchedLog10(org.jfree.chart.axis.LogarithmicAxisTest) (0 ms)
- org.jfree.data.RangeTest\_v3.intersectsInOut(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.combineTestInput1IsNull(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest.testAdd (org.jfree.data.statistics.DefaultBoxAndWhiskerXYDatasetTest) (0 ms)
- $\bullet \ org.j free. data.general. Dataset Utilities Test. test Iterate Range Bounds\_Interval Category Dataset$ (org.jfree.data.general.DatasetUtilitiesTest) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.expandToIncludeInside(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.renderer.xy.XYAreaRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.XYAreaRendererTest) (1 ms)
- org.jfree.chart.axis.CyclicNumberAxisTest.testSerialization(org.jfree.chart.axis.CyclicNumberAxisTest) (4 ms)
- org.jfree.chart.LineChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.LineChartTest) (1 ms)
- org., free.data.RangeTest v3.ignoringnanSecondNull(org., free.data.RangeTest v3) (1 ms)
- org.jfree.chart.renderer.category.StatisticalBarRendererTest.testDrawWithNullDeviationHorizontal (org.jfree.chart.renderer.category.StatisticalBarRendererTest) (9 ms)
- org.jfree.chart.axis.DateAxisTest.testBug3484403(org.jfree.chart.axis.DateAxisTest) (4 ms)
- org.jfree.chart.plot.MeterIntervalTest.testSerialization(org.jfree.chart.plot.MeterIntervalTest) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testSetNullRenderer(org.jfree.chart.plot.XYPlotTest) (0 ms)
   org.jfree.chart.StackedBarChart3DTest.testSetSeriesURLGenerator(org.jfree.chart.StackedBarChart3DTest) (1
- org.jfree.chart.plot.XYPlotTest.testEquals ObjectList3(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org.jfree.chart.renderer.xy.XYStepRendererTest.testDrawWithNullValue (org.jfree.chart.renderer.xy.XYStepRendererTest) (4 ms)
- org.jfree.data.testA3.RangeTest v2.combineTestIntersect(org.jfree.data.testA3.RangeTest v2) (1 ms)
- org.jfree.data.RangeTest\_v3.shiftBasicValue(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testMapDatasetToDomainAxis(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testSerialization(org.jfree.chart.axis.NumberAxisTest) (4 ms)
- org., free.data.testA3.RangeTest v2.equalsTestForHigherRange(org., free.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testAxisLocationIndices(org.jfree.chart.plot.XYPlotTest) (2 ms)
- org.jfree.data.RangeTest\_v3.combineWithOneNanUpper(org.jfree.data.RangeTest\_v3) (0 ms)
- org. jfree.data.xy.XYSeriesCollectionTest.testGetRangeBounds(org. jfree.data.xy.XYSeriesCollectionTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.equalsTestForLowerRange(org.jfree.data.testA3.RangeTest\_v2) (1 ms)
   org.jfree.chart.axis.PeriodAxisTest.test1932146(org.jfree.chart.axis.PeriodAxisTest) (1 ms)

- org.jfree.data.RangeTest\_v3.constrainTestOnUpper(org.jfree.data.RangeTest\_v3) (0 ms)
   org.jfree.data.general.DatasetUtilitiesTest.testIterateRangeBounds4(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.data.RangeTest\_v3.intersectsRange(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.chart.renderer.xy.XYBarRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.XYBarRendererTest) (2 ms)
- org.jfree.chart.PieChart3DTest.testNullValueInDataset(org.jfree.chart.PieChart3DTest) (30 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindStackedRangeBounds CategoryDataset2 (org.jfree.data.general.DatasetUtilitiesTest) (0 ms)
- org.jfree.chart.StackedBarChartTest.testSetSeriesURLGenerator(org.jfree.chart.StackedBarChartTest) (1 ms)
- org.jfree.chart.renderer.category.LevelRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.LevelRendererTest) (4 ms)
- org.jfree.chart.axis.LogAxisTest.testXYAutoRange1(org.jfree.chart.axis.LogAxisTest) (10 ms)
- org.jfree.chart.plot.CategoryPlotTest.testAxisRange(org.jfree.chart.plot.CategoryPlotTest) (0 ms)
   org.jfree.chart.plot.CombinedRangeXYPlotTest.testRemoveSubplot (org.jfree.chart.plot.CombinedRangeXYPlotTest) (6 ms)
- org.jfree.chart.WaterfallChartTest.testSetSeriesURLGenerator(org.jfree.chart.WaterfallChartTest) (0 ms)
- org.jfree.data.RangeTest.testSerialization(org.jfree.data.RangeTest) (0 ms)
- org.jfree.data.testA2.RangeTest.getLowerBoundTest(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.RangeTest\_v3.toStringTest(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.renderer.category.AreaRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.category.AreaRendererTest) (0 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testBug1572478Vertical (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (3 ms)
- org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest.testAdd (org.jfree.data.statistics.DefaultBoxAndWhiskerCategoryDatasetTest) (0 ms)
- org.jfree.chart.plot.CombinedDomainCategoryPlotTest.testSerialization (org.jfree.chart.plot.CombinedDomainCategoryPlotTest) (12 ms)
- org.jfree.chart.block.GridArrangementTest.testNR(org.jfree.chart.block.GridArrangementTest) (0 ms)

- org.jfree.data.time.DateRangeTest.testImmutable(org.jfree.data.time.DateRangeTest) (0 ms)
   org.jfree.data.RangeTest\_v3.combineTestInput2IsNull(org.jfree.data.RangeTest\_v3) (0 ms)
   org.jfree.chart.axis.DateAxisTest.testJava2DToValue(org.jfree.chart.axis.DateAxisTest) (1 ms)

- org.jfree.data.general.DatasetUtilitiesTest.testFindStackedRangeBounds CategoryDataset1 (org.jfree.data.general.DatasetUtilitiesTest) (2 ms)
- org.jfree.chart.block.GridArrangementTest.testRF(org.jfree.chart.block.GridArrangementTest) (0 ms)
- org.jfree.data.testA2.RangeTest.constrainTestOnUpper(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.RangeTest\_v3.expandToIncludeInside(org.jfree.data.RangeTest\_v3) (0 ms)
- org. free.data.RangeTest\_v3.ignoringnanFirstNull(org. free.data.RangeTest\_v3) (1 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateRangeBounds(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.chart.renderer.xy.XYLineAndShapeRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.XYLineAndShapeRendererTest) (4 ms)
- org.jfree.chart.AreaChartTest.testReplaceDataset(org.jfree.chart.AreaChartTest) (2 ms)
- org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest.testDrawWithNullMean (org.jfree.chart.renderer.category.BoxAndWhiskerRendererTest) (3 ms)
- org.jfree.chart.axis.NumberAxisTest.testXYAutoRange2(org.jfree.chart.axis.NumberAxisTest) (3 ms)
- org.jfree.data.testA3.RangeTest\_v2.CombineIgnoringNaNBothNULL(org.jfree.data.testA3.RangeTest\_v2) (0
- org.jfree.data.testA3.RangeTest v2.getLengthDifferentValues(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateHourA(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.data.time.TimeSeriesTest.testFindValueRange(org.jfree.data.time.TimeSeriesTest) (0 ms)

- org.jfree.chart.ChartPanelTest.test2502355\_zoomInRange(org.jfree.chart.ChartPanelTest) (5 ms)
   org.jfree.chart.ChartPanelTest.test2502355\_zoomOutBoth(org.jfree.chart.ChartPanelTest) (8 ms)
   org.jfree.chart.axis.LogarithmicAxisTest.testAdjustedLog10(org.jfree.chart.axis.LogarithmicAxisTest) (0 ms)
- org.jfree.chart.plot.FastScatterPlotTest.testEquals2(org.jfree.chart.plot.FastScatterPlotTest) (0 ms)
- org.jfree.data.testA2.RangeTest.containsTestMin(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.plot.CategoryPlotTest.testSerialization(org.jfree.chart.plot.CategoryPlotTest) (13 ms)
- org.jfree.chart.renderer.category.GroupedStackedBarRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.GroupedStackedBarRendererTest) (16 ms)
- org.jfree.chart.plot.XYPlotTest.testCloning4(org.jfree.chart.plot.XYPlotTest) (0 ms)
- org.jfree.data.testA2.RangeTest.centralValueShouldBePositive(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.RangeTest v3.containsTestForOnLowerBound(org.jfree.data.RangeTest v3) (4 ms)
- org.jfree.data.RangeTest\_v3.getUpperBoundTest(org.jfree.data.RangeTest\_v3) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateMonthA(org.jfree.chart.axis.DateAxisTest) (6 ms)
- org.jfree.chart.plot.XYPlotTest.test1654215(org.jfree.chart.plot.XYPlotTest) (5 ms)
- org.jfree.data.testA3.RangeTest\_v2.constrainTestMiddleOfRange(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.data.RangeTest\_v3.centralValueShouldBePositive(org.jfree.data.RangeTest\_v3) (1 ms)
- org., free.data.testA2.RangeTest.constrainTestMiddleOfRange(org., free.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testGetDomainAxisForDataset(org.jfree.chart.plot.XYPlotTest) (17 ms)
- org.jfree.chart.StackedBarChartTest.testSetSeriesToolTipGenerator(org.jfree.chart.StackedBarChartTest) (1 ms)
- org, free.chart.plot.PiePlotTest.testDrawWithNullLegendLabels(org, free.chart.plot.PiePlotTest) (6 ms)
- org.jfree.chart.axis.PeriodAxisTest.testEqualsWithLocale(org.jfree.chart.axis.PeriodAxisTest) (307 ms)
- org.jfree.data.testA3.RangeTest\_v2.intersectsRange(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateHourB(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.data.testA2.RangeTest.constrainTestOnLower(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.chart.axis.LogAxisTest.testSetLowerBound(org.jfree.chart.axis.LogAxisTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testSetMaximumDate(org.jfree.chart.axis.DateAxisTest) (1 ms)
- org.jfree.data.testA3.RangeTest v2.switchedInputToConstructor(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.chart.axis.LogarithmicAxisTest.testValueToJava2D(org.jfree.chart.axis.LogarithmicAxisTest) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testDrawSeriesWithZeroItems(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest.testRemove (org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest) (0 ms)
- org.jfree.data.testA3.RangeTest\_v2.combineTestInput2IsNull(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org., free.chart.plot.PolarPlotTest.testTranslateToJava2D NumberAxis(org., free.chart.plot.PolarPlotTest) (0 ms)
- org.jfree.chart.axis.DateAxisTest.testPreviousStandardDateMonthB(org.jfree.chart.axis.DateAxisTest) (2 ms)
- org.jfree.chart.plot.CombinedRangeXYPlotTest.testSerialization (org.jfree.chart.plot.CombinedRangeXYPlotTest) (12 ms)
- org.jfree.data.testA3.RangeTest v2.intersectsOutIn(org.jfree.data.testA3.RangeTest v2) (0 ms)
- org.jfree.data.RangeTest.testIntersects(org.jfree.data.RangeTest) (0 ms)
- org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest.test3072674
- (org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest) (1 ms) org.jfree.chart.renderer.category.LayeredBarRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.LayeredBarRendererTest) (2 ms)
- org.jfree.chart.plot.CategoryPlotTest.testDomainMarkerIndices(org.jfree.chart.plot.CategoryPlotTest) (1 ms)
- org.jfree.data.RangeTest.testConstructor(org.jfree.data.RangeTest) (0 ms)
- org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest.testGetRangeBounds2 (org.jfree.data.statistics.DefaultStatisticalCategoryDatasetTest) (8 ms)
- org.jfree.chart.StackedBarChartTest.testDrawWithNullInfo(org.jfree.chart.StackedBarChartTest) (4 ms)

- org.jfree.chart.renderer.category.LineAndShapeRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.LineAndShapeRendererTest) (1 ms)
- org.jfree.data.testA2.RangeTest.containsTestForLessThanLowerBound(org.jfree.data.testA2.RangeTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testFindRangeBounds2(org.jfree.data.general.DatasetUtilitiesTest) (0
- org.jfree.chart.renderer.xy.XYBubbleRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.XYBubbleRendererTest) (0 ms)
- org.jfree.chart.renderer.category.IntervalBarRendererTest.testDrawWithNullInfo (org.jfree.chart.renderer.category.IntervalBarRendererTest) (14 ms)
- org.jfree.data.RangeTest v3.getLengthDifferentValues(org.jfree.data.RangeTest v3) (1 ms)
- org.jfree.chart.renderer.xy.AbstractXYItemRendererTest.testFindDomainBounds (org.jfree.chart.renderer.xy.AbstractXYItemRendererTest) (0 ms)
- org.jfree.chart.TimeSeriesChartTest.testDrawWithNullInfo(org.jfree.chart.TimeSeriesChartTest) (7 ms)
- org.jfree.chart.renderer.category.BarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.category.BarRendererTest) (0 ms)
- org.jfree.chart.axis.NumberAxisTest.testAutoRange1(org.jfree.chart.axis.NumberAxisTest) (3 ms)
- org.jfree.data.RangeTest\_v3.intersectsOutOutLow(org.jfree.data.RangeTest\_v3) (1 ms)
- org.jfree.data.testA3.RangeTest\_v2.toStringTest(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
   org.jfree.data.testA3.RangeTest\_v2.getLowerBoundTest(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
   org.jfree.chart.renderer.xy.XYAreaRenderer2Test.testGetLegendItemSeriesIndex
- (org.jfree.chart.renderer.xy.XYAreaRenderer2Test) (1 ms)
- org.jfree.chart.axis.NumberAxisTest.testSetLowerBound(org.jfree.chart.axis.NumberAxisTest) (0 ms)
- org.jfree.data.general.DatasetUtilitiesTest.testIterateDomainBounds(org.jfree.data.general.DatasetUtilitiesTest) (1
- org.jfree.chart.StackedAreaChartTest.testReplaceDataset(org.jfree.chart.StackedAreaChartTest) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testEquals(org.jfree.chart.plot.XYPlotTest) (5 ms)
- org.jfree.chart.renderer.AbstractRendererTest.testPaintLookup(org.jfree.chart.renderer.AbstractRendererTest) (1
- org.jfree.chart.plot.FastScatterPlotTest.testCloning(org.jfree.chart.plot.FastScatterPlotTest) (3 ms)
- org.jfree.data.testA3.RangeTest\_v2.equalsTestForSameRange(org.jfree.data.testA3.RangeTest\_v2) (0 ms)
- org.jfree.chart.renderer.xy.XYAreaRenderer2Test.testDrawWithNullInfo (org.jfree.chart.renderer.xy.XYAreaRenderer2Test) (5 ms)
- org.jfree.chart.block.GridArrangementTest.testRR(org.jfree.chart.block.GridArrangementTest) (1 ms)
- org.jfree.chart.ScatterPlotTest.testSetSeriesToolTipGenerator(org.jfree.chart.ScatterPlotTest) (1 ms)
- org.jfree.chart.plot.XYPlotTest.testDomainMarkerIndices(org.jfree.chart.plot.XYPlotTest) (1 ms)
- org.jfree.data.RangeTest v3.constrainTestOnLower(org.jfree.data.RangeTest v3) (1 ms)
- org. free.data.testA3.RangeTest v2.constrainTestOutsideRangeBelow(org. free.data.testA3.RangeTest v2) (1
- org.jfree.chart.renderer.xy.YIntervalRendererTest.testGetLegendItemSeriesIndex (org.jfree.chart.renderer.xy.YIntervalRendererTest) (1 ms)
- org.jfree.chart.axis.ValueAxisTest.testCloning(org.jfree.chart.axis.ValueAxisTest) (1 ms)
- org.jfree.chart.renderer.xy.StackedXYBarRendererTest.testFindRangeBounds (org.jfree.chart.renderer.xy.StackedXYBarRendererTest) (0 ms)
- org.jfree.data.RangeTest v3.expandLowerBecomesBigger(org.jfree.data.RangeTest v3) (0 ms)
- org.jfree.chart.plot.XYPlotTest.testSerialization3(org.jfree.chart.plot.XYPlotTest) (8 ms)
- org. ifree.chart.plot.MeterPlotTest.testSerialization1(org. ifree.chart.plot.MeterPlotTest) (7 ms)

Report generated by PIT 1.4.11