Class Rectangle

```
java.lang.Object
  └Rectangle
```

Direct Known Subclasses:
Square

```
public class Rectangle
extends java.lang.Object
```

A rectangle in 2 dimensions

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Constructor Summary

Rectangle(Point p1, Point p2) Construct a rectangle from two opposite corner points.	

Method Summary

boolean	**equals**(java.lang.Object obj) Is that other Rectangle equivalent to this one?
double	**getArea**() Returns the area of this Rectangle
Point	**getCenter**() Returns the center Point of this Rectangle
double	**getHeight**() Returns the height of this Rectangle
double	**getWidth**() Returns the width of this Rectangle
Rectangle	**intersection**(Rectangle r) Returns the intersection of two rectangles
boolean	**intersects**(Rectangle r) Does this Rectangle intersect another rectangle?

boolean	**isInside**(Point p) Is the given Point inside this Rectangle?
java.lang.String	**toString**() Returns a String representation of this Rectangle.
void	**translate**(double dx, double dy) Changes the location of this Rectangle by the specified amount in each direction.

Methods inherited from class java.lang.Object
getClass, hashCode, notify, notifyAll, wait, wait, wait

Constructor Detail

Rectangle

```
public Rectangle(Point p1,
                 Point p2)
```

Construct a rectangle from two opposite corner points.

Parameters:

p1 - One corner point.
p2 - Another corner point.

Method Detail

toString

```
public java.lang.String toString()
```

Returns a String representation of this Rectangle.

Overrides:

toString in class java.lang.Object

Returns:

a String representation of this Rectangle.

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equals

```
public boolean equals(java.lang.Object obj)
```

Is that other Rectangle equivalent to this one?

Overrides:
`equals` in class `java.lang.Object`

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getWidth

```
public double getWidth()
```

Returns the width of this Rectangle

Returns:
the width of this Rectangle

---

getHeight

```
public double getHeight()
```

Returns the height of this Rectangle

Returns:
the height of this Rectangle

---

getArea

```
public double getArea()
```

Returns the area of this Rectangle

Returns:
the area of this Rectangle

---

getCenter

```
public Point getCenter()
```

Returns the center Point of this Rectangle

Returns:
the center Point of this Rectangle

---

intersects

```
public boolean intersects(Rectangle r)
```

Does this Rectangle intersect another rectangle?

Parameters:
`r` - the other rectangle
Returns:
true if they intersect (even in a line or point), false otherwise.

---

translate

```
public void translate(double dx,
                      double dy)
```

Changes the location of this Rectangle by the specified amount in each direction.

Parameters:
`dx` - amount to move this Rectangle by in the x direction
`dy` - amount to move this Rectangle by in the y direction

---

intersection

```
public Rectangle intersection(Rectangle r)
```

Returns the intersection of two rectangles

Parameters:
`r` - the other rectangle
Returns:
the intersection of this with r (null if they do not intersect)

---

isInside

```
public boolean isInside(Point p)
```

Is the given Point inside this Rectangle?

Parameters:
`p` - the Point
Returns:
true if the Point is inside this Rectangle, false otherwise.

PREV CLASS NEXT CLASS FRAMES NO FRAMES All Classes
SUMMARY: NESTED | FIELD | CONSTR | METHOD DETAIL: FIELD | CONSTR | METHOD