Class Geometry

java.lang.Object
    Geometry

```
public class Geometry
extends Object
```

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Constructor Summary

Constructors

Constructor	Description
`Geometry()`	

Method Summary

All Methods Static Methods Concrete Methods

Modifier and Type	Method	Description
static double	`circleArea(double radius)`	circleArea method takes 1 parameter: a radius value.
static double	`circleCircumference(double r)`	circleCircumference method takes 1 parameter: a radius value.
static void	`main(String [] args)`	main method is the entire program.
static void	`printMenu()`	printMenu method displays a multiline print statement of the options of the program.
static double	`rectangleArea(double length, double width)`	rectangleArea method takes 2 parameters: a length and width value.
static double	`rectanglePerimeter(double L, double W)`	rectanglePerimeter method takes 2 parameters: a length value (L) and a width value (W).
static double	`triangleArea(double b,`	triangleArea method takes 2 parameters:

	double h)	a base value (b) and height value (h).
static double	**trianglePerimeter**(double s1, double s2, double s3)	trianglePerimeter method takes 3 parameters: 3 side values of a triangle (s1, s2, s3).

Methods inherited from class java.lang.Object

equals , getClass , hashCode , notify , notifyAll , toString , wait , wait , wait

Constructor Details

Geometry

```
public Geometry()
```

Method Details

main

```
public static void main(String [] args)
```

main method is the entire program. Program gives user 6 options choose from for calculating area, perimeter, and circumference of various shapes. Program does not need to be recompiled to run.

Parameters:

`args` - default

printMenu

```
public static void printMenu()
```

printMenu method displays a multiline print statement of the options of the program. "This is a geometry calculator. Choose what you would like to calculate. 1. Find the area of a circle 2. Find the area of a rectangle 3. Find the area of a triangle 4. Find the circumference of a circle 5. Find the perimeter of a rectangle 6. Find the perimeter of a triangle Enter the number of your choice:"

circleArea

```
public static double circleArea(double radius)
```

circleArea method takes 1 parameter: a radius value. Returns the area of a circle. Formula: area = pi*r^2

Parameters:

`radius` - radius of the circle

Returns:

The area of the circle

rectangleArea

```
public static double rectangleArea(double length,
                                   double width)
```

rectangleArea method takes 2 parameters: a length and width value. Returns the area of a rectangle. Formula: area = LW

Parameters:

`length` - length of the rectangle

`width` - width of the rectangle

Returns:

The area of the rectangle

triangleArea

```
public static double triangleArea(double b,
                                  double h)
```

triangleArea method takes 2 parameters: a base value (b) and height value (h). Returns the area of a triangle. Formula: area = (1/2) * base * height

Parameters:

`b` - The base of the triangle

`h` - The height of the triangle

Returns:

The area of the triangle

circleCircumference

```
public static double circleCircumference(double r)
```

circleCircumference method takes 1 parameter: a radius value. Returns the circumference of a circle Formula: area = 2*pi*r

Parameters:

`r` - The radius of the circle

Returns:

The circumference of the cricle

rectanglePerimeter

```
public static double rectanglePerimeter(double L,
                                        double W)
```

rectanglePerimeter method takes 2 parameters: a length value (L) and a width value (W). Returns the perimeter. Formula: perimeter = 2L * 2W

Parameters:

`L` - The length of the rectangle

`W` - The width of the rectangle

Returns:

The perimeter of the rectangle

trianglePerimeter

```
public static double trianglePerimeter(double s1,
                                       double s2,
                                       double s3)
```

trianglePerimeter method takes 3 parameters: 3 side values of a triangle (s1, s2, s3). Returns the perimeter. Formula: perimeter = side1 + side2 + side3

Parameters:

`s1` - Side "1" of triangle

`s2` - Side "2" of triangle

`s3` - Side "3" of triangle

Returns:

The perimeter of the triangle