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SwimmingPool

Class SwimmingPool

java.lang.Object

SwimmingPool.SwimmingPool

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

Constructor Summary

Constructors

Constructor and Description

SwimmingPool(double length, double width, double depth, double fillRate, double drainRate)

Constructor

Method Summary

All Methods Instance Methods Concrete Methods

Modifier and Type	Method and Description
double	calcGallonsDrain (double drainTime) Calculate Gallons removed during drain time
double	calcGallonsFill (double fillTime) Calculate Gallons added during filling time
double	calcGallonsofWater (double current, double target) Calculate the gallons of water needed to adjust fill percentage
double	calcTimeToDrain (double remove) Calculate Time To Drain
double	calcTimeToFill (double needed) Calculate Time to Fill
double	getGallonsInPool (double percentFull)
double	getMaxTimeToDrain ()

double	<code>getMaxTimeToFill()</code>
double	<code>getPoolCapacity()</code>
java.lang.String	<code>toString()</code>

Methods inherited from class java.lang.Object

`clone`, `equals`, `finalize`, `getClass`, `hashCode`, `notify`, `notifyAll`, `wait`, `wait`, `wait`

Constructor Detail

SwimmingPool

```
public SwimmingPool(double length,  
                    double width,  
                    double depth,  
                    double fillRate,  
                    double drainRate)
```

Constructor

Parameters:

`length` - Length of Pool

`width` - Width of Pool

`depth` - Depth of Pool

`fillRate` - Fill rate in gpm

`drainRate` - Drain rate in gpm

Method Detail

getPoolCapacity

```
public double getPoolCapacity()
```

getMaxTimeToFill

```
public double getMaxTimeToFill()
```

Returns:

Max time to fill

getMaxTimeToDrain

```
public double getMaxTimeToDrain()
```

Returns:

Max Time to Drain

calcGallonsofWater

```
public double calcGallonsofWater(double current,  
                                double target)
```

Calculate the gallons of water needed to adjust fill percentage

Parameters:

current - Current Percentage Full of Pool

target - Target Percentage Full of Pool

Returns:

Absolute value of water needed to adjust the fill level

calcTimeToFill

```
public double calcTimeToFill(double needed)
```

Calculate Time to Fill

Parameters:

needed - Gallons to add to adjust the level

Returns:

Hours to Fill

calcTimeToDrain

```
public double calcTimeToDrain(double remove)
```

Calculate Time To Drain

Parameters:

remove - Gallons to drain to adjust the level

Returns:

drain time

calcGallonsFill

```
public double calcGallonsFill(double fillTime)
```

Calculate Gallons added during filling time

Parameters:

fillTime - hours the user would like to run water

Returns:

Gallons added in the time inputted

calcGallonsDrain

```
public double calcGallonsDrain(double drainTime)
```

Calculate Gallons removed during drain time

Parameters:

drainTime - hours the user would like to run water

Returns:

Gallons added in the time inputted

getGallonsInPool

```
public double getGallonsInPool(double percentFull)
```

Parameters:

percentFull - Percentage Full

Returns:

Gallons of water in the pool

toString

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

Overrides:

toString in class java.lang.Object

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