public class LuckyNumbers {

// no instance variables

// empty constructor

public LuckyNumbers() { }

public int randomIntegerBetween(int min, int max) {

int randomNum = (int) (Math.*random*() \* (max - min + 1)) + min;

return randomNum;

}

public String getLuckyNumbers() {

int num1 = randomIntegerBetween(1, 65);

int num2 = randomIntegerBetween(1, 65);

int num3 = randomIntegerBetween(1, 65);

int num4 = randomIntegerBetween(1, 65);

int num5 = randomIntegerBetween(1, 65);

int superBall = randomIntegerBetween(1, 30);

String str = "Your lucky numbers are: ";

str += num1 + " " + num2 + " " + num3 + " " + num4 + " " + num5 + "\n";

str += "The super ball is: " + superBall;

return str;

}

}

public class Circle {

private double radius;

public Circle(double radius) {

this.radius = radius;

}

/\* Returns the area of the circle with given radius

Area of a circle = pi \* r ^ 2

\*/

public double area() {

return Math.*PI* \* Math.*pow*(radius, 2);

}

/\* Returns the circumference of the circle with given radius

Circumference of a circle = pi \* d

(d = diameter = 2 \* r)

\*/

public double circumference() {

return 2 \* Math.*PI* \* radius;

}

/\* Updates the radius of the circle to newRadius

\*/

public void setRadius(double newRadius) {

radius = newRadius;

}

/\* Returns a String that includes info about the circle, including its

radius, area, and circumference

\*/

public String getInfo() {

return "radius = " + radius + "\narea = " + area() + "\ncircumference = " + circumference();

}

}

public class RightTriangle {

private double base;

private double height;

public RightTriangle(double base, double height) {

this.base = base;

this.height = height;

}

public double hypotenuse() {

double sumOfSides = Math.*pow*(base, 2) + Math.*pow*(height, 2);

return Math.*sqrt*(sumOfSides);

}

}