

Additional Problems

Saturday:

Write a program to convert centimetres (input) to feet and inches (output).

$$1 \text{ inch} = 2.54 \text{ cm.}$$

Sunday:

Write a program that does the reverse of Celsius to Fahrenheit conversion, that is, input degrees Fahrenheit and prints out the temperature in degrees Celsius. The formula to convert degrees Fahrenheit to equivalent degrees Celsius is:

$$\text{Celsius} = (5/9) * (\text{Fahrenheit} - 32).$$

Monday:

If you invest P euro at R percent interest rate compounded annually, in 1 year, your investment will grow to

$$P * (1 + (R / 100)) \text{ euro}$$

Write an application that accepts P and R and computes the amount of money earned after 1 year.

Tuesday:

Determine the output of the following program without running it first. Hint * (the \n is the newline character. so it will print a new line)

```
class TestOutput {
    public static void main(String[] args) {
        System.out.println("One");
        System.out.print("Two");
        System.out.print("\n");
        System.out.print("Three");
        System.out.println("Four");
        System.out.print("\n");
        System.out.print("Five");
        System.out.println("Six");
    }
}
```

Wednesday:

Determine the output of the following code before running it. When you do decide to run it create a class and a main method first.

```
int x, y;  
x = 1;  
y = 2;  
System.out.println("The output is " + x + y );  
System.out.println("The output is " + ( x + y ) );
```

Thursday:

The volume of a sphere is computed by the equation

$$V = (4/3) * (PI * (R * R * R))$$

Where V is the volume and r is the radius of the sphere. Write a program that computes the volume of a sphere with a given radius r input by the user.