CPS 210 Lab 8

PROBLEMS — For each problem, place in a method. Call each method and display the result. Use Scanner to get values for your parameters:

1. Create a method that when called, displays, "Hello World!"
   - **HINT:** You don't need parameters for this one since I am giving you the String to print.
2. Create a method that prints a given String when called.
3. Write a method that computes the sum of 1 through n.
4. Write a method that computes the sum of 1 through n then returns the average.
   - For this question, try to call your method from Q3 to get the sum, THEN compute the average. Remember, you can call methods in other methods.
5. Write a method that calculates BMI. The calculation is as follows:

$$BMI = \frac{(\text{Weight in Pounds }) * 703}{(\text{Height in inches})^2}$$

6. Write a method that converts a Celsius degree into Fahrenheit. Celsius should be a double. The formula for the conversion is as follows: **Fahrenheit = (9 / 5) * Celsius + 32**
7. Write a method that converts the time in seconds to days:hours:minutes:seconds.

- **Ex.** Given 313297 seconds, output is 3:15:1:37
- **Ex.** given 2071403 seconds, output is 23:23:23:23
- **Hint:** Have the return be a String and return the output above.

8. Write a method that determines whether a three digit integer is a palindrome number. A number is a palindrome if it reads the same from right to left and from left to right.
   - **Ex.** 121 , 393, 909, 555 are all palindromes
   - **Ex.** 123, 456, 980 are not palindromes
9. Write a method that given the right side of a triangle and the left side of a triangle, determines the hypotenuse. Remember the pythagorean theorem, and the Math class's methods:

Formula

$$a^2 + b^2 = c^2$$

a = side of right triangle

b = side of right triangle

c = hypotenuse

10. Write a method that counts the numbers from 1 to n that are divisible by 2 **or** 7.
11. Write a method that computes the sum of digits of any length integer.
12. Write a method that computes the factorial of n.