

# Lab 8

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1. Create a program with a method that prints your name every time it is called. Hint: This method does not return any values.
2. Create a program with a method that takes a `String` parameter and prints it. Print the `String` 5 times.
3. Create a program that prompts the user for a word, and then passes it to the method in question 2.
4. Create a program that prompts the user for an integer `n`, and then passes it to a method that calculates the sum of the first `n` numbers.
5. Create a program with a method that calculates the BMI of a person. The method should take two parameters: weight and height.<
  - $BMI = (weight / (height * height)) * 703$
  - Weight should be in pounds. Height should be in inches.
  - The program should prompt the user for weight and height, and then pass these numbers to the method. The program should then display the BMI.
6. Create a program with a method that converts the time in seconds to days:hours:minutes:seconds.
  - Example: input: 313297 seconds output: 3:15:1:37
  - Have the return type be a `String` and print the result in the main method.
7. Create a program with a method that takes the right and left side of a triangle and returns the hypotenuse.
  - The pythagorean theorem is:  $a^2 + b^2 = c^2$
  - $a$  and  $b$  are the sides of the triangle.  $c$  is the hypotenuse.
8. Create a program that asks the user for their first and last name and saves them to two separate variables. Then pass them to a method that combines them into one `String` and returns it. Print the result in the main method.
9. Create a program that asks the user for a number and then passes it to a method that calculates the factorial of that number.
  - Factorial is the product of all positive integers less than or equal to  $n$ .
  - Example factorial of 5 is  $5! = 5 * 4 * 3 * 2 * 1 = 120$
10. Create a program that asks the user for a number and then passes it to a method that checks if the number is prime. The method should return a `boolean` value. Print the result in the main method.