

# Methods Practice Problems

1. Write a method that calculates the slope of a line, given the coordinates  $x_1$ ,  $y_1$ ,  $x_2$ ,  $y_2$  of two points on the line.

Example input: 1, 2, 9, 8                      Expected output: 0.75

Example input: 10, 10, -30, 30              Expected output: -2.0

2. Write a method that accepts three doubles and returns the greatest double. Hint: check the java Math API for a method that will help with this.

Example input: 1.5, -3, -4.5                Expected output: 1.5

Example input: 10, 10, 3                    Expected output: 10

3. Write a method that accepts three integers and checks whether or not they are consecutive.

Example input: 1, 3, 4                      Expected output: false

Example input: 9, 10, 11                   Expected output: true

Example input: 20, 19, 18                  Expected output: true

4. Write a method that checks whether a given year is a leap year. Leap years are divisible by 4, except for end of century years which must be divisible by 400.

Example input: 2000                        Expected output: true

Example input: 100                         Expected output: false

Example input: 2017                        Expected output: false