

**CSCI-105 Introduction to Programming**  
Lab 5 - Wednesday

**Instructions:**

Log onto cs.bridgewater.edu. Change your working directory to the labs directory in your repository. Create a subdirector (in labs) named lab5. Change your working directory to lab5. When complete, please push your code to GitHub.

Write a Java program in a class named **PointInCircle** that behaves as follows:

The program repeatedly does the following:

- Print the following menu
  - **[1] determine if point is in circle centered at (0,0)**
  - **[2] exit**
- If the user enters 2 to exit, the program should terminate.
- If the user enters 1 to determine if a point is in a circle centered at (0,0), the program should prompt the user to enter in the x and y coordinates of a point and the radius of the circle.

A point is in a circle centered at (0,0) with radius x if the distance from the point to (0,0) is less than x.

The distance between two points can be computed using the following formula.

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

**Enter point coordinates:** 3 10 [enter]

**Enter radius of circle:** 5[enter]

**Point is in circle: false**