Lab Exercise 1

Write a program that prompts the user to enter two points (x1, y1) and (x2, y2) and displays their distance between them. The formula for computing the distance is $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$.

Note that you can use Math.pow(a, 0.5) to compute $\sqrt{a}$.

Here is a sample run:

```
Enter x1 and y1: 1.5 -3.4  ↵
Enter x2 and y2: 4 5  ↵
The distance between the two points is 8.764131445842194
```

Lab Exercise 2

Write a program that reads an integer between 0 and 1000 and adds all the digits in the integer. For example, if an integer is 932, the sum of all its digits (9 + 3 + 2) is 14.

Hint: Use the % operator to extract digits, and use the / operator to remove the extracted digit. For instance, 932 % 10 = 2 and 932 / 10 = 93.

Here is a sample run:

```
Enter an integer between 0 and 1000: 999  ↵
The sum of all digits in 999 is 27
```