

HIT 265 C Programming – Tutorial 5

Question 1

Write a function `qualityPoints()` that inputs a student's average and returns 4 if a student's average is 90–100, 3 if the average is 80–89, 2 if the average is 70–79, 1 if the average is 60–69, and 0 if the average is lower than 60.

Question 2

Write function `distance` that calculates the distance between two points (x_1, y_1) and (x_2, y_2) . All numbers and return values should be of type `double`. The equation that calculates the distance between the two coordinates is:

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

Question 3

Write a C program that plays the game of “guess the number” as follows: Your program chooses the number to be guessed by selecting an integer at random in the range 1 to 1000. The program then types:

I have a number between 1 and 1000.

Can you guess my number?

Please type your first guess.

The player then types a first guess. The program responds with one of the following:

1. Excellent! You guessed the number! Would you like to play again (y or n)?
2. Too low. Try again.
3. Too high. Try again

If the player's guess is incorrect, your program should loop until the player finally gets the number right. Your program should keep telling the player Too high or Too low to help the player “zero in” on the correct answer.