

PRG 155 -Programming Fundamentals Using C

LAB #3

PART I

- a) Convert minutes, stored as the variable **totalMin**, to hours and minutes. Variable **totalMin** is initiated to **137**. The output produced by the program should look as follows:

137 minutes = 2 hours & 17
minutes

- b) Compute and display the **sum** and the **average** of 3 integer numbers entered by the user.

PART II

1. Compute the distance between two points using the following formula:

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

where (x1, y1) and (x2, y2) are two points on a coordinate plane. For this, you will use the C functions **sqrt()** and **pow()**:

- To calculate the square root of a number (x), function sqrt() will be used: sqrt(x).
- Function pow(x,y) returns x^y .
- To use functions sqrt() and pow() you need to include the header file **math.h**.
- Both functions return double as the result. For more information, visit:

https://www.tutorialspoint.com/c_standard_library/math_h.htm

2. The values of x1, y1, x2, and y2 are entered by the user.
3. The output will be shown in scientific format with two decimal places.
Tip: To print a value in the form of 123E+22 with two decimal places, use the format specifier %.2E.

4. Show your work to instructor.
5. Save the program as **lab4.c** and submit it on the Blackboard.