

CMPE110 Quiz Sample Questions

Q1) The following code may contain errors, correct these errors (if any). **In case no error, do not write anything.**

```
include<iostream> .....  
  
Using namesapce std; .....  
  
#define FACT = 5.0/9 .....  
  
int MAIN() .....  
  
{Double TFah, TCel; .....  
cin<<TFah; .....  
TCel=Fact*(tFah-32.0); .....  
  
cout>>"Celsius temperature is">>TCel; .....  
  
return 0} .....
```

Q2) Complete the given C++ program that asks the user to input the sum and the difference of two real numbers, and then it will find the corresponding numbers and print them. A sample execution of your program is shown below

Enter sum and difference of 2 real numbers > 16.80 18.6

Number1=13.700000

Number1=3.100000

```
#include <iostream>  
using namespace std;  
int main(){double sum, dif, number1, number2;  
cout<<"Enter the sum and the difference of two real numbers >";  
  
// Get the impute form the user  
.....  
// write the process to find number1 and number2  
.....  
.....
```

```
// Display the output on the monitor
```

```
.....  
return 0;}
```

Q3) The **area** of a triangle with sides **A**, **B**, and **C** is calculated as

$$Area = \sqrt{S(S-A)(S-B)(S-C)}$$

Where $S = P/2$ and **P** is the triangle **perimeter** computed as

$$P = A + B + C$$

Write a C++ code to read the coordinates of three points that form the triangle vertices **P1(x1,y1)**, **P2(x2,y2)**, and **P3(x3,y3)** and computes and prints on the monitor the **perimeter** and the **area** of the triangle. Note the distance between two points, **P1** and **P2** for example, is computed as

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

Note: Let all variables be of type double. A sample run of the code can be as

```
Enter the coordinates of point 1: 2 5  
Enter the coordinates of point 2: 2 8  
Enter the coordinates of point 3: 6 8  
The triangle perimeter is 12.0  
The area of the triangle is 6.0
```

