

C++ Assignments | Fundamentals of Programming -1 | Week2

Ques 1)

```
11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int a,b;
5  cin>>a>>b;
6  if(a>b) cout<<a;
7  else cout<<b;
8  }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\svikr\OneDrive\Desktop\assignment> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -std=c++11 -o 11.exe }
PS C:\Users\svikr\OneDrive\Desktop\assignment> 11.exe
12
1
12
PS C:\Users\svikr\OneDrive\Desktop\assignment> 
```

11.cpp > main()

```
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int a,b;
5  cin>>a>>b;
6  if(a>b) cout<<a;
7  else cout<<b;
8  }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\svikr\OneDrive\Desktop\assignment> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
5
7
7
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

+ v ... ^ x

Code

Code

Code

Ques2)

```
11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int radius;
5  cin>>radius;
6  float area=3.14*radius*radius;
7  float circumference =2*3.14*radius;
8  if(area>circumference) cout<<area<< endl<<"area>circumference";
9  else cout<<circumference<<endl<<"area<circumference";
10 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
4
50.24
area>circumference
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

Ques 3)

```
11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int n;
5  cin>>n;
6  if(n%400==0) cout<<"yes";
7  else if(n%100==0)cout<<"no";
8  else if(n%4==0)cout<<"yes";
9  else cout<<"no";
10 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\De
sktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
1976
yes
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

```

11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int n;
5  cin>>n;
6  if(n%400==0) cout<<"yes";
7  else if(n%100==0)cout<<"no";
8  else if(n%4==0)cout<<"yes";
9  else cout<<"no";
10 }

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```

> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
2003
no
PS C:\Users\svikr\OneDrive\Desktop\assignment>

```

0 0 0 Ln 10, Col 2 Spaces: 4 UTF-8 CRLF {} C++ Go Li

Ques 4)

```
11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int length,breadth;
5  cin>>length>>breadth;
6  int area =length*breadth;
7  int perimeter = 2*(length+breadth);
8  if(area>perimeter) cout<<area<<endl<<"Area is greater than perimeter.";
9  else cout<<perimeter<<endl<<"perimeter is greater than area.";
10 }
```

sktop\assignment\" ; if (\$?) { g++ 11.cpp -o 11 } ; if (\$?) { .\11 }

4

7

28

Area is greater than perimeter.

PS C:\Users\svikr\OneDrive\Desktop\assignment>

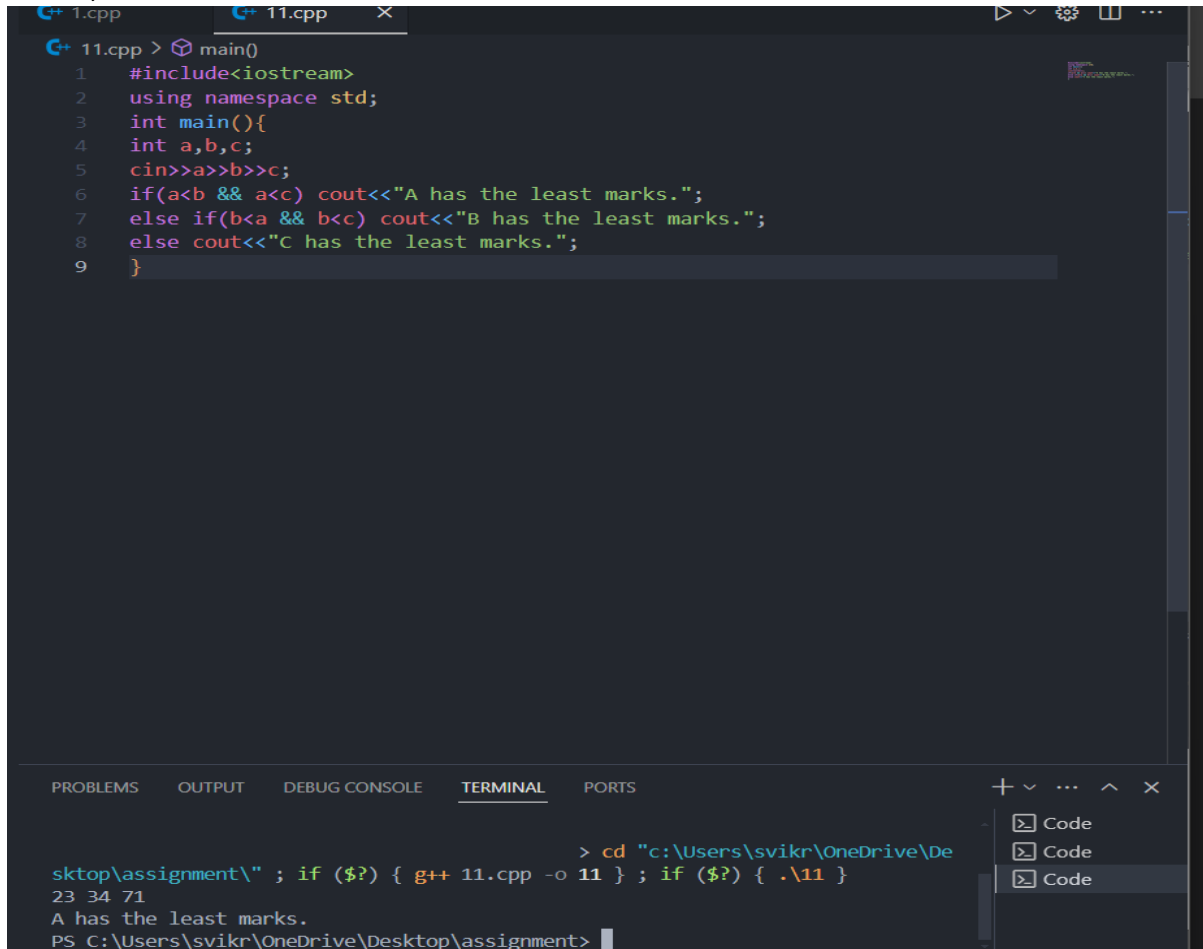
Ques 5)

```
11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int side1,side2,side3;
5  cin>>side1>>side2>>side3;
6  if(side1==side2 && side2==side3 ) cout<<"This is an equilateral triangle";
7  else if(side1==side2 || side1==side3 || side2==side3) cout<<"This is an Is
8  else cout<<"This is an scalene triangle.";
9  }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\De
sktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
5 4 4
This is an Isosceles triangle.
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

Ques 6)



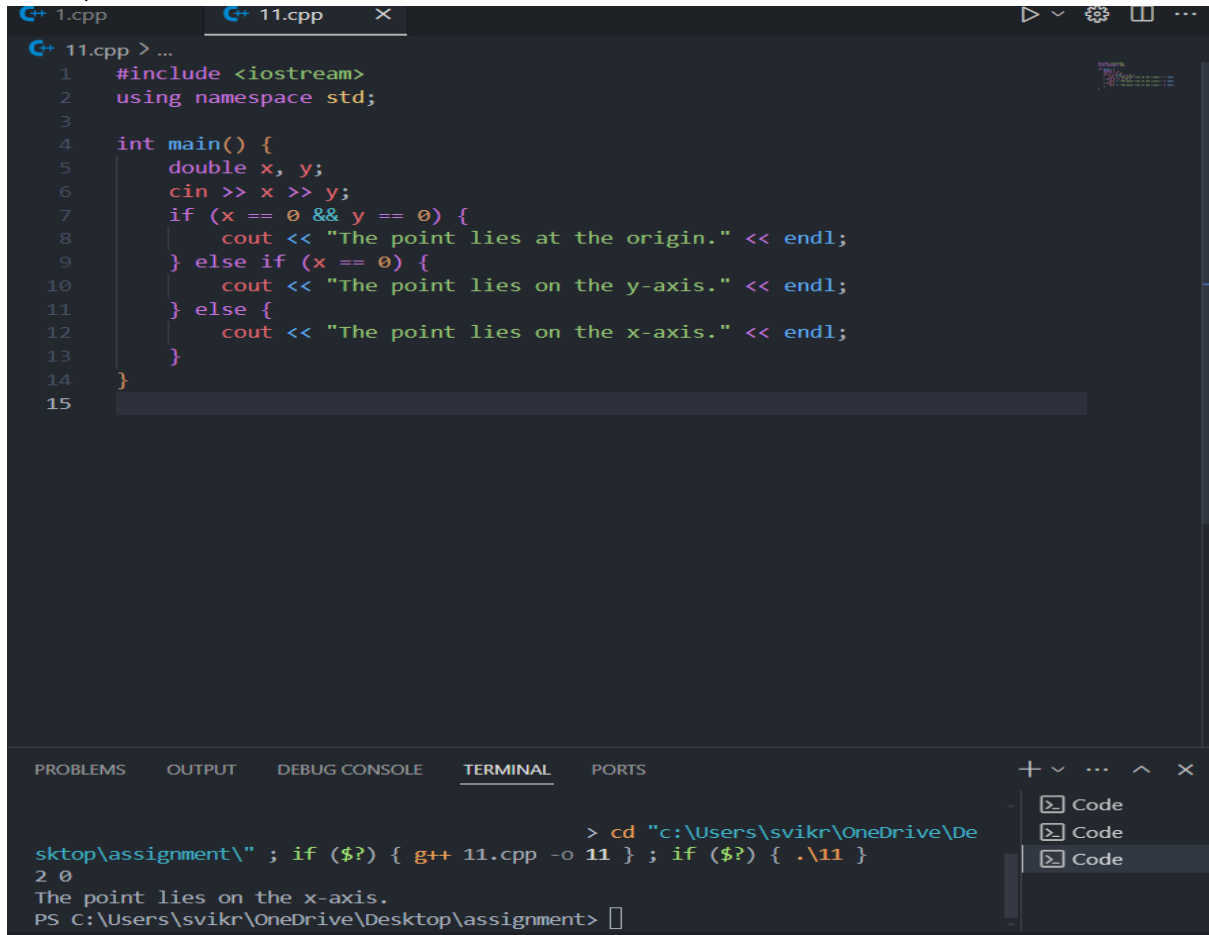
The image shows a C++ IDE with a dark theme. The editor window displays a C++ program named 11.cpp. The code defines a main function that takes three integers a, b, and c as input and prints the name of the variable with the smallest value. The logic uses nested if-else statements to compare the values. The terminal window at the bottom shows the command prompt where the program is compiled and executed, resulting in the output 'A has the least marks.'

```
11.cpp > main()
1  #include<iostream>
2  using namespace std;
3  int main(){
4  int a,b,c;
5  cin>>a>>b>>c;
6  if(a<b && a<c) cout<<"A has the least marks.";
7  else if(b<a && b<c) cout<<"B has the least marks.";
8  else cout<<"C has the least marks.";
9  }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
23 34 71
A has the least marks.
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```


Ques7)

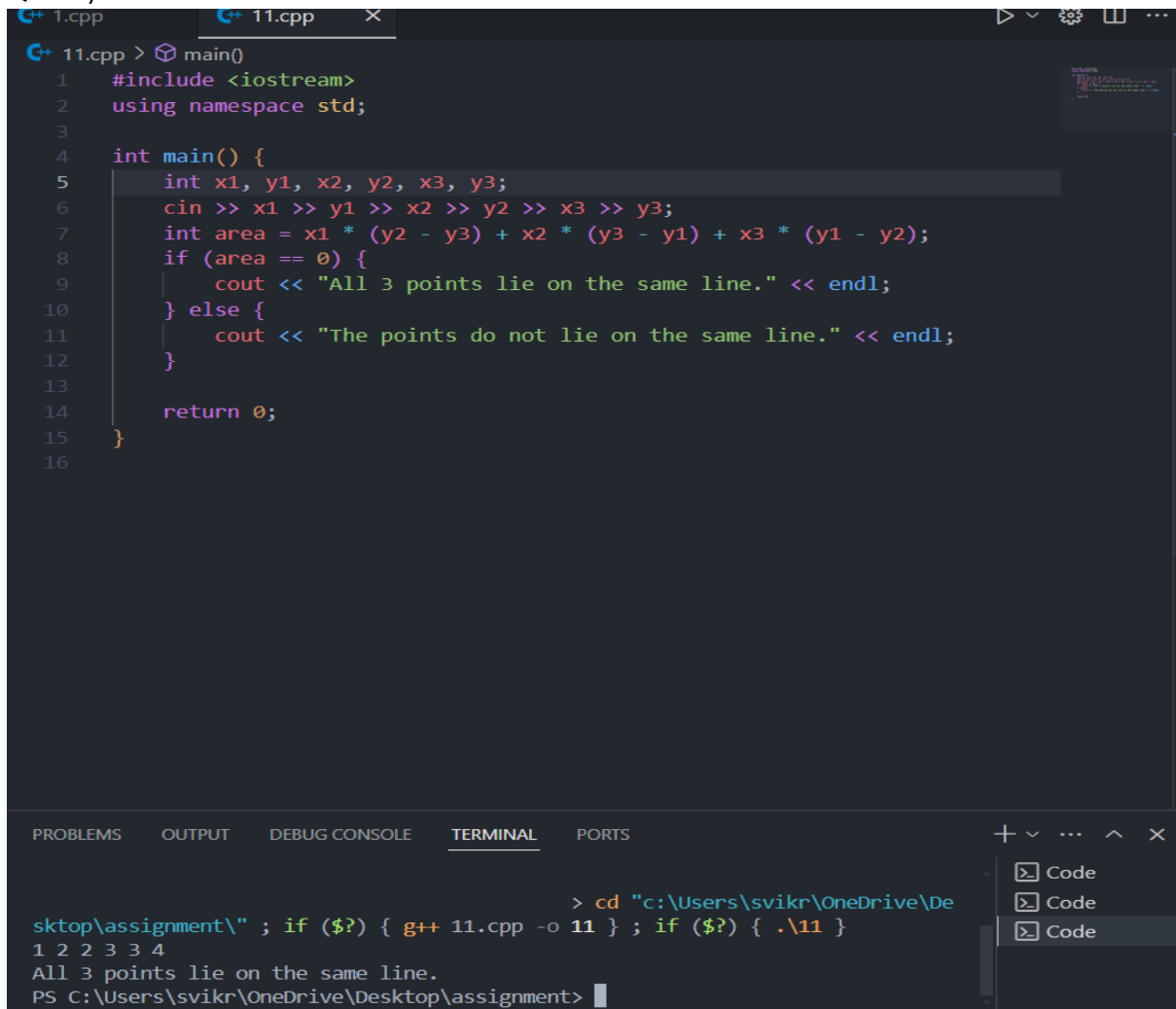


```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      double x, y;
6      cin >> x >> y;
7      if (x == 0 && y == 0) {
8          cout << "The point lies at the origin." << endl;
9      } else if (x == 0) {
10         cout << "The point lies on the y-axis." << endl;
11     } else {
12         cout << "The point lies on the x-axis." << endl;
13     }
14 }
15
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
2 0
The point lies on the x-axis.
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

Ques 8)



```
11.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int x1, y1, x2, y2, x3, y3;
6      cin >> x1 >> y1 >> x2 >> y2 >> x3 >> y3;
7      int area = x1 * (y2 - y3) + x2 * (y3 - y1) + x3 * (y1 - y2);
8      if (area == 0) {
9          cout << "All 3 points lie on the same line." << endl;
10     } else {
11         cout << "The points do not lie on the same line." << endl;
12     }
13
14     return 0;
15 }
16
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
1 2 2 3 3 4
All 3 points lie on the same line.
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

Ques 9)

```
11.cpp > main()
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      char ch;
6      cin >> ch;
7      if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
8          cout << "Alphabet" << endl;
9      } else if (ch >= '0' && ch <= '9') {
10         cout << "Digit" << endl;
11     } else {
12         cout << "Special character" << endl;
13     }
14
15     return 0;
16 }
17
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
> cd "c:\Users\svikr\OneDrive\Desktop\assignment\" ; if ($?) { g++ 11.cpp -o 11 } ; if ($?) { .\11 }
9
Digit
PS C:\Users\svikr\OneDrive\Desktop\assignment>
```

Ques 10) Predict the output of the below code:

Ans) value of b and c are respectively 300 and 200.