```cpp
//Ques 1:-Take 2 integers input and print the greatest of them//
#include <iostream>

using namespace std;

int main() {
    int num1, num2;
    cout << "Enter first number:";
    cin >> num1;
    cout << "Enter second number:";
    cin >> num2;
    if (num1 > num2) {
        cout << "First number " << num1 << " is the largest";
    } else {
        cout << "Second number " << num2 << " is the largest";
    }
    return 0;
}                                                    //output:- enter two
number is 5 and 8 and answer:- sceond number 8 is the largest
```

```cpp
//Ques 2:-Given the radius of the circle, predict whether numerically the
area of this circle is larger than the circumference or not. //
#include <iostream>

using namespace std;

int main() {
    int radius;
    cout << "Enter the radius : ";
    cin >> radius;

    float area = 3.14 * radius * radius;
    float circumference = 2 * 3.14 * radius;
    if (area > circumference) cout << "Area is greater than
circumference." << endl;
    else cout << "Circumference is greater than area." << endl;
    return 0;
```

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}                                   // output enter is radius area is greater
than circumference //
```

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//Ques 3:-Any year is input through the keyboard. Write a program to
determine whether the year is a leap year or not. (Considering leap year
occurs after every 4 years)//
#include <iostream>

using namespace std;

int main() {
    int year;
    cout << "Enter a year: ";
    cin >> year;

    // leap year if perfectly divisible by 400
    if (year % 400 == 0) {
        cout << year << " is a leap year.";
    }
    // not a leap year if divisible by 100
    // but not divisible by 400
    else if (year % 100 == 0) {
        cout << year << " is not a leap year.";
    }
    // leap year if not divisible by 100
    // but divisible by 4
    else if (year % 4 == 0) {
        cout << year << " is a leap year.";
    }
    // all other years are not leap years
    else {
        cout << year << " is not a leap year.";
    }

    return 0;
}                                       //output :- Enter a year 1993
answer:- 1993 is not a leap year
```

```cpp
//Ques 4:-Given the length and breadth of a rectangle, write a program to find whether numerically the area of the rectangle is greater than its perimeter.//
#include <iostream>

using namespace std;

int main() {
    int length, breadth;
    cout << "Enter the length and breadth of the rectangle respectively :
";
    cin >> length >> breadth;

    int area = length * breadth;
    int perimeter = 2 * (length + breadth);
    if (area > perimeter) cout << "Area is greater than perimeter.";
    else cout << "Perimeter is greater than area.";
    return 0;
}                                       //Output :- lenght = 5 breadth =7 area is greater than perimeter
```

```cpp
//Ques 5:-Write a program to input sides of a triangle and check whether a triangle is equilateral, scalene or isosceles triangle.
#include<iostream>

using namespace std;

int main() {
    int side1, side2, side3;

    cout << "Please Enter Three Sides of a Triangle =  ";
    cin >> side1 >> side2 >> side3;

    if (side1 == side2 && side2 == side3) {
        cout << "This is an Equilateral Triangle";
    } else if (side1 == side2 || side2 == side3 || side1 == side3) {
        cout << "This is an Isosceles Triangle";
    } else
        cout << "This is a Scalene Triangle";
```

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    return 0;
}                   //Output:- Enter is three sides 5 , 8 , 9 this is
scalene Triangle
```

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//Ques 6:- If the marks of A, B and C are input through the keyboard,
write a program to determine the student scoring least marks.
#include <bits/stdc++.h>

using namespace std;

int main() {
    cout << "Enter marks of the students : ";
    int a, b, c;
    cin >> a >> b >> c;

    if (a <= b && a <= c)
        cout << "A scores the least marks";

    else if (b <= a && b <= c)
        cout << "B scores the least marks";

    else
        cout << "C scores the least marks";

    return 0;
}                                   //output:- Enter the marks of
students 23 , 34 , 73  is A scores the least marks
```

```
//Ques 7:-Given a point (x, y), write a program to find out if it lies on
the x-axis, y-axis or at the origin, viz. (0, 0).
#include<iostream>

using namespace std;

int main() {
    float x, y;
    printf("Enter the x-y coordinates of the point : ");
    cin >> x >> y;
```

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    if (x == 0 && y == 0)
        cout << "The point is on the origin.";
    if (x == 0 && y != 0)
        cout << "The point lie on the y-axis.";
    if (x != 0 && y == 0)
        cout << "The points lie on the x-axis.";
    if (x != 0 && y != 0)
        cout << "The points lie on the plane.";
    return 0;
}                       //Output:- enter the x-y coordinates of the point:
2 and 4 ans:- the point lie on the plane
```

```
//Ques 8:-Given three points (x1, y1), (x2, y2) and(x3, y3), write a
program to check if all the three points fall on one straight line.
#include <iostream>

using namespace std;
int main() {
    float x1, y1, x2, y2, x3, y3, slope1, slope2;

    cout << "Enter points (x1, y1)" << endl;
    cin >> x1 >> y1;

    cout << "Enter points (x2, y2)" << endl;
    cin >> x2 >> y2;

    cout << "Enter points (x3, y3)" << endl;
    cin >> x3 >> y3;

    slope1 = (y2 - y1) / (x2 - x1);
    slope2 = (y3 - y2) / (x3 - x2);

    if (slope1 == slope2) {
        cout << "All 3 points lie on the same line";
    } else {
        cout << "All 3 points do not lie on the same line";
    }

    return 0;
```

```
}             //Output:- enter points 1 ,2 ,3,4,5,6 answer:- All 3 points
lie on the same line
```

```
//Ques 9 :- Write a C++ program to input any character and check whether
it is the alphabet, digit or special character.
#include<iostream>

using namespace std;

int main() {
    char ch;
    cout << "Enter any character : ";
    cin >> ch;

    // Alphabet checking condition
    if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
        cout << ch << " is an Alphabet";
    } else if (ch >= '0' && ch <= '9') {
        cout << ch << " is a Digit";
    } else {
        cout << ch << " is a Special Character";
    }
    return 0;
}               //output: enter any character 9 ans:- 9 is a digit
```

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//Ques 10:-Predict the output of below code
#include<iostream>

using namespace std;
int main() {
    int a = 500, b, c;
    if (a >= 400)
        b = 300;
    c = 200;
    cout << "value of b and c are respectively " << b << " and " << c;
    return 0;
}                               //output:- value of b and c are
respectively 300 and 200
```