

## Conditional Statements (Assignment Questions)

**Question 1 :** Write a C++ program to get a number from the user and print whether it's positive, negative or zero.

**Question 2 :** Write a C++ program that takes a year from the user and print whether that year is a leap year or not.

**Hint :** A leap year is exactly divisible by 4 except for century years (years ending with 00). The century year is a leap year only if it is perfectly divisible by 400.

Eg: 1999 is not a leap year  
2000 is a leap year  
2004 is a leap year

**Question 3 :** What will be the value of x & y in the following program:

```
int main() {  
    int a = 63, b = 36;  
    bool x = (a < b) ? true : false;  
    int y = (a > b) ? a : b;  
    cout << x << ", " << y << endl;  
    return 0;  
}
```

**Question 4 :** What'll be the output of the program:

```
int main() {  
    int a = 5;  
  
    if (++a*5 <= 25) {  
        cout<<"Hello\n";  
    } else {  
        cout<<"Bye\n";  
    }  
}
```

```
return 0;  
}
```

**Question 5 :** For any 3 digit number check whether it's an Armstrong number or not.

Armstrong number is a number that is equal to the sum of cubes of its digits.

Eg : 371 is an armstrong number.

$$3*3*3 + 7*7*7 + 1*1*1 = 371$$

**Bonus :** Read up about the difference between typedef (keyword), macros & const (keyword) in C++.

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