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JAVA ASSIGNMENT

Q1.

```java
public static void main(String[] args) {
    int n = 8;
    // Shift
    System.out.println(n >> 1);             // Signed Right Shift by 1
    System.out.println(n << 1);             // Signed Left Shift by 1
    System.out.println(n >>> 1);            // Unsigned Shift

    int a = 3;
    int b = 6;
    int c = 7;
    // Bitwise Operators;
    System.out.println(a | b);              // Bitwise OR
    System.out.println(a & b);              // Bitwise AND
    System.out.println(a ^ b);              // Bitwise XOR
    System.out.println(~c);                 // Bitwise Compliment

    // Relational Operators;
    int d = 7;
    int e = 5;
    int f = 7;
    System.out.println(d==f);
    System.out.println(d!=e);
    System.out.println(d>e);
    System.out.println(d>=f);
}
```

Problems @ Javadoc Declaration Console ×

<terminated> Switchcase [Java Application] C:\Program Files\Java\jdk-16\bin\ja

```
4
16
4
7
2
5
-8
true
true
true
true
```

Q2.

```
  public static void main(String[] args) {
      Scanner sc= new Scanner(System.in);
      int n=sc.nextInt();
      int count=0;
      for(int i=2;i<=Math.sqrt(n);i++)
      {if(n%i==0)
          count++;
      }
      if(count==0)
          System.out.println(n+" is a prime number");
      else
          System.out.println(n+" is not a prime number");
      }

    }
```

```
29
29 is a prime number
30
30 is not a prime number
```

Q3.

```
  public static void main(String[] args) {
      Scanner sc= new Scanner(System.in);
      int n=sc.nextInt();
      if(n%4==0)
      {if (n%100 == 0  && n%400!=0 )
          System.out.println(n+" is not a leap year");
      else
          System.out.println(n+" is a leap year");
      }
      else
      {System.out.println(n+" is not a leap year");
    }}}
```

```
1900
1900 is not a leap year
2000
2000 is a leap year

1984
1984 is a leap year
```

Q4.

```
public static void main(String[] args) {

    int sum=0;
        for( int i=1;i<=10;i++)
        {sum+=i;}
        System.out.println("The sum of the first 10 numbers is "+sum);
  }}
```

```
The sum of the first 10 numbers is 55
```

Q5.

```
package Switch;

public class Switchcase {

    public static void main(String[] args) {
        int month = 11;
        String name = "";

        switch(month) {
            case 1:
                name = "January";
                break;
            case 2:
                name = "February";
                break;
            case 3:
                name = "March";
                break;
            case 4:
                name = "April";
                break;
            case 5:
                name = "May";
                break;
            case 6:
                name = "June";
                break;
            case 7:
                name = "July";
                break;
            case 8:
                name = "August";
```

```
            case 8:
                name = "August";
                break;
            case 9:
                name = "September";
                break;
            case 10:
                name = "October";
                break;
            case 11:
                name = "November";
                break;
            case 12:
                name = "December";
                break;
            default: System.out.println("Enter a valid month between 1 and 12.");
        }

        System.out.println(name);
    }

    }
```

```
November
```