1) Read two integer values to perform bitwise operations for 4|2, 4&2, ~4, 4^2.

```
#include <stdio.h>
 int main( )
 {
 int a, b ;
 //Step 1: read two integer values
 Printf("enter two integer values:");
 Scanf("%d %d", &a, &b);
 //step 2: Perform bitwise operations
Printf("\n bitwise AND(a & b) = %d", a & b);
Printf("\n bitwise OR (a | b) = %d", a | b);
Printf("\n bitwise XOR (a ^ b) = %d", a ^ b);
Printf("\n bitwise NOT (~a) = %d", ~a);
Printf("\n bitwise NOT (~b) = %d", ~b);
Printf("\n Left shift (a << 1) = %d", a << 1);
Printf("\n Right shift (a >> 1) = %d", a >> 1);
return 0;
}
```

Output :

Enter two integer values : 4, 2

Bitwise AND (a & b) = 0

Bitwise OR (a | b) = 71441108

Bitwise XOR (a ^ b) = 71441108

Bitwise NOT (~a) = -5

Bitwise NOT (~b) = -71441105

Left shift (a << 1) = 8

Right shift (a >> 1) = 2

Read bitwise operations of two integer values a=4, b=2 for >, <, >=, <=, !=

```
#include <stdio.h>
int main()
{
int a, b ;
//step 1: read two integer values
Printf("enter two integer values;");
Scanf("%d %d", &a, &b);
//Step 2: Perform relational operations
Printf("\n Results of relational operations :\n");
Printf("a < b : %d\n", a < b);
Printf("a > b : %d\n", a > b);
Printf("a <= b : %d\n", a <= b);
Printf("a >= b : %d\n", a >= b);
Printf("a != b : %d\n", a != b);
return 0;
}
```

Output:

Enter two integer values : 4, 2

Results of relational operations:

a < b : 0

a > b : 1

a <= b : 0

a >= b : 1

a != b : 1

Read two integer values perform bitwise operations for a=4, b=2 a==b.

```
#include <stdio.h>
 int main( )
 {
 int a, b;
 //step 1: read two integer values
 Printf ("enter two integer values:");
 Scanf ("%d %d", &a, &b);
 //Step 2; Check quality
 if(a == b)
 {
 Print f("both numbers are equal.\n");
 }
 else
 {
 Printf("both numbers are not equal.\n");
 }
 return 0;
 }
```

Output:

Enter two integer values: 4, 2

Both numbers are not equal.