

### Practice 3 Bit-Wise Operator

Note: In many questions 255 is used, first find why 255 is used. It will help you to create these programs.

1. Input a number and tell position of bits, which are on. See sample run:

```
Enter number:249
```

```
Bit 1 is on
```

```
Bit 4 is on
```

```
Bit 5 is on
```

```
Bit 6 is on
```

```
Bit 7 is on
```

```
Bit 8 is on
```

2. Input two numbers and tell how many bits are different:

```
Enter first number:337
```

```
Enter second number:249
```

```
In 337 and 249, 4 bits are different
```

3. Input a number and find whether the no is power of two?

4. Input a number less than equal 255 and flip its first 8 bits. Check first 8 bits, if bit is 0, set it to 1 and vice versa. Some sample outputs after flipping is given to get better understanding. The main challenge in this program is to make a mask for flipping bit 1 to 0:

```
Enter Number: 29
```

```
After Flipping: 226
```

```
Enter Number: 240
```

```
After Flipping: 255
```

5. Input two numbers and check whether they are equal or not (don't use relational operators)