

# Bitwise Operator

## Xor

```
In [1]: 12^13
```

```
Out[1]: 1
```

```
In [2]: print(bin(25))  
print(bin(30))
```

```
0b11001  
0b11110
```

```
In [3]: 25^30
```

```
Out[3]: 7
```

```
In [5]: bin(7)
```

```
Out[5]: '0b111'
```

```
In [6]: bin(25)
```

```
Out[6]: '0b11001'
```

```
In [7]: bin(30)
```

```
Out[7]: '0b11110'
```

## Left Shift

```
In [8]: 10<<1
```

```
Out[8]: 20
```

```
In [9]: 10<<2
```

```
Out[9]: 40
```

```
In [10]: 10<<3
```

```
Out[10]: 80
```

```
In [11]: 10<<4
```

```
Out[11]: 160
```

## Right Shift

```
In [12]: 10 >> 1
```

```
Out[12]: 5
```

```
In [13]: 10 >> 3
```

```
Out[13]: 1
```

```
In [14]: bin(20)
```

```
Out[14]: '0b10100'
```

```
In [ ]:
```