



Question 1: Logical Operations

```
1010 0001  
AND 0101 1111
```

```
1010 0001  
OR 0101 1111
```

```
1010 0001  
XOR 0101 1111
```

Question 2: Shifting

Assuming 8-bit, 2's complement binary numbers, what is the result of the following?

- 00001100 << 3
- 10100001 >> 3
- 10100001 >>> 3