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IN-CLASS EXERCISE

Bitwise operations

Assume this type definition for everything.

```
typedef unsigned char uchar;
```

1. Get one bit from a single byte.

```
uchar get_bit(uchar ch, int bit_idx) {

}

}
```

2. Set one bit in a single byte.

```
uchar set_bit(uchar ch, int bit_idx, uchar new_value) {

}

}
```

3. Get a few bits from a single byte.

```
uchar get_bits(uchar ch, int start_bit, int end_bit) { // end_bit is inclusive

}

}
```

4. Set a few bits on a single byte.

```
uchar set_bits(uchar ch, int bit_idx, uchar new_value, int num_bits) {

}

}
```

precedence of operators

