Bitwise operations
Assume this type definition for everything.

```C
typedef unsigned char uchar;
```

1. Get one bit from a single byte.
```C
uchar get_bit(uchar ch, int bit_idx) {
}
```

2. Set one bit in a single byte.
```C
uchar set_bit(uchar ch, int bit_idx, uchar new_value) {
}
```

3. Get a few bits from a single byte.
```C
uchar get_bits(uchar ch, int start_bit, int end_bit) { // end_bit is inclusive
}
```

4. Set a few bits on a single byte.
```C
uchar set_bits(uchar ch, int bit_idx, uchar new_value, int num_bits) {
}
```