# CSC369 Exercise 1

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## Tutorial 1: C Programming Review

Question 1: Write down the output of the following C program.

```c
#include <stdio.h>
int main() {
    int x[] = {2,4,6,8,10}, y = 3, *z;

    z = &y;
    *z = 2;
    x[y] = 3;

    z = x;
    ++(*z);
    ++z;
    *z = 2*(*z);

    printf("%d %d %d %d %d %d %d\n",
            x[0], x[1], x[2], x[3], x[4], y, *z);
    return 0;
}
```

Question 2: Complete one-line C codes for the bit operations described below.

```
int x = 3076;
```

```
/* set all bits to 0 */
x = _____
```

```
/* keep least significant bit (1st bit), all others set to 0 */
x = _____
```

```
/* toggle l.s.b (1st bit), all other bits unchanged */
x = _____
```

```
/* set l.s.b. (1st bit) to 1, all others toggle */
x = _____
```

```
/* set 2nd and 12th bits to 1, 5th and 9th bits to 0, others
unchanged */
x = _____
```