

1. What does the code below print out? Use the precedence chart to help you. (8 points)

```
int a; int b; int c;
```

```
a = 0; b = 0; c = 2;
```

```
printf("%d", ++a || b++ && ++c);    a) _____
```

```
printf("%d, %d, %d", a, b, c);      b) _____
```

```
a = 0; b = 0; c = 2;
```

```
printf("%d", a++ && b++ || ++c);    c) _____
```

```
printf("%d, %d, %d", a, b, c);      d) _____
```

2. What does the code below print out? Use the precedence chart to help you. (3 points)

```
int a = 1; int b = 2; int c = 3; int d = 4;
```

```
printf("%i", a > b > c);             a) _____
```

```
printf("%i", a != !(b < c) > d);     b) _____
```

```
printf("%i", a + b >= d <= !!b == b); c) _____
```

3. What does the code on the right print out? (3 points)

```
int sum = 80; int X = 0;
if (sum >= 90)
    X = 1;
if (sum >= 80)
    X = 2;
if (sum >= 70)
    X = 3;
if (sum >= 60)
    X = 4;

printf("%i", X);
```

4. What does the code on the right print out? (3 points)

```
int x = 1;
switch (x)
{
    case 1:
        printf("A");
    case 2:
        printf("B");
        break;
    case 3:
        printf("C");
    case 4:
        printf("D");
        break;
    default:
        printf("E");
        break;
}
```

5. What does the code on the right print out? (3 points)

```
void foo(void)
{
    int x = 10;
    if (--x < 10)
        x = 11;
    printf("%d", x);
}
```

6. What does the code on the right print out? (4 points)

```
int i = 3; int total = 1;
while (i >= 0)
{
    total += i;
    i--;
}
printf("%d, %d", total, i);
```

7. What does the code on the right print out? (4 points)

```
int x, y = 3;
for (x = 5; y <= x; x++)
    y += x;
printf("%d, %d", y, x);
```

8. Do these programming problems from the textbook:

A. Chapter 4, #1

Make sure you are following the CS120 Style Guide as you write these programs. When you submit the "real" assignments, you will be graded **heavily** on style. Now is the time to start learning good programming habits.