CSC 108 Quiz # 1 Name _____

Multiple Choice: /* 1 point */

D

_____ 1. JR has typed the code below. It's not producing the output he wants, which is a green rectangle with a white border on a red background. How should he change his code to get his desired results? The color triple for red is (255, 0, 0), and the color triple for green is (0, 255, 0).

```
size (300, 300);
background(255, 0, 0);
fill(0, 255, 0);
stroke(0, 255, 0);
rect(100, 200, 50, 25);
```

A) change the last line to ellipse (80, 80, 70, 60);
B) change the first line to background(0, 255, 0);
C) change the second line to fill(0, 0, 255);
D) change the third line to stroke(255, 255, 255);
E) none of these is an accurate description

Short Answer:

1. Type this code in Processing and run the program. Explain, line by line, what Processing is doing: /* 7 points */

```
int kilometers = 2; declares integer variable kilometers and initializes its value to 2

int decameters = 0; declares integer variable decameters and initializes its value to 0

int meters = 5; declares integer variable meters and initializes its value to 5

print("2 kilometers, 0 decameters, 5 meters = "); prints text within quotes with no
line break afterwards

meters = meters + 10*decameters + 1000*kilometers; updates value of meters to 2005

print(meters); prints contents of variable meters (2005)

println(" meters."); prints a space and the word meters, followed by a line break
```

2. Suppose x has the value 17 and y has the value 31. Give statements that would produce the following output. You MUST use variables in your answer! /* 3 points */

```
x = 17 and y = 31

print("x = ");
print(x);
print(" and y = ");
print(y);
```

3. Suppose x has the value 17 and y has the value 31. Give statements that would produce the following output. You MUST use variables in your answer! /* 3 points */

```
31
17

println(y);
println(x);
```

4. Explain, line by line, what Processing is doing in the following code: /* 4 points */

```
size(400, 400); sets size of the sketch to 400x400 pixels
noFill(); sets no fill color
rect(100, 100, 100, 100); draws a rectangle with top left corner at (100, 100) and
width and height of 100 pixels
rect(100, 100, 50, 50); draws a second rectangle with top left corner at (100, 100) and
width and height of 50 pixels
```

Short Answer (continued):

5. Fill in the blanks in this program so that it converts the given number of inches into feet correctly and prints the answer in the Console. /* 4 points */ Hint: there are 12 inches in a foot – so if we have 24 inches that should be converted into 2 feet.

```
float inches = 50;
float feet;


feet= inches/12;

print("50 inches = ");

print( feet );


println("feet");
```

6. Complete this Processing statement so that it calculates the half of the difference of the values stored in variables `mouseX` and `circleCenterX`. /* 3 points */

```
halfTheDiff =(mouseX-circleCenterX)/2;
```