

1 Identify the syntax error in each of the following.

(3)

(a) `void drawIt(x, y) {
 // implementation not shown
}`

(b) `void doSomething {
 // implementation not shown
}`

(c) `mystery(boolean a) {
 // implementation not shown
}`

2 Explain why the following does not work as intended.

(3)

```
int a = 4;

void draw() {
    incr(a);
}

void incr(int a) {
    a = a + 1;
}
```

3 Explain why you might want to use a method to represent a section of your programming code, even if that section does not need to be repeated.

(5)

4 Create the `dartboard()` method which will take as its sole parameter, `scale`, to use as the scale of the dartboard. Use your most recent rendition of the Dartboard program from Assignment #5 as the basis for this method.

(5)

5 Implement the `transformAndDrawPoint()` method with the following definition:

(10)

```
transformAndDrawPoint(x, y, xMin, yMin, xMax, yMax, size)
```

which will transform the point, (x, y) , from a coordinate plane defined by $(xMin, yMin)$, $(xMax, yMax)$ to one defined by $(0, 0)$, $(width, height)$ and draw it on the screen as a circle centered at (x', y') with diameter *size*.

Note: You may want to use your solution to drawing a graph from Assignment #5 in order to guide and test your solution for this question.

6 Revisit your most recent Processing Bee implementation (Assignment #3) to implement each of the following.

(20)

- The `drawBee()` method which accepts the parameters, `x` and `y`, and draw the Processing Bee centered on the given `x` and `y`.
- An overloaded `drawBee()` method which accepts the parameters, `x` and `y`, and additionally accepts the `scale` parameter to draw the Processing Bee centered on the given `x` and `y` and scaled according to the given scale factor.
- Change your solution to part (a) to call your method from part (b). Explain why this approach might be beneficial.