Name:_____ Prism ID (gtx000x, jsmith0): _____

CS 1316, Summer Quiz 1

1. Who is your grading TA? [1 pt]

2. Which of the following lines of Java code are POSSIBLY valid? Circle the correct choices. [5 pts]

   (a) double x;   (b) real x = 0.0;   (c) double x = 9.0;   (d) x = 9.0;

   (e) double real = new Color(255, 255, 255);

(3) The following function goes through all the numbers from 1 to 10, multiplying them together and returns the product (i.e. the factorial 10!). Complete the first line of the `for` loop so that the function works correctly. [6 pts]

```
int factorial10() {
    int product = 1;
    for (_____ ;_____;_____)
        product = product * i;
    return product;
}
```

(4) The following method in the class `Picture` decreases the blue in the picture (and therefore makes it look more yellow). However, there are several errors in the code. Mark the code below to correct the errors. [6 pts]

```
def void decreaseBlue():
    Pixel[] pixels =  getPixels(this);
    width = this.getWidth();
    int area == width * this.getHeight()
    int pixNum = 0;
    while (pixNum <= area):
        Pixel pix = pixels.pixNum;
        blueValue = pix.getBlue();
        pix.setBlue((int)(blueValue * 0.5));
        pixNum++ = pixNum + 1
```

(5) Write Java code that draws a rectangle that is twice as long as it is high, where height is given to be 100 pixels. [7 pts]

```
public class TurtleSquares {
    public static void main(String[] args) {
    // Write your code below
```