Sample Quiz 4: Answers

1. In this Processing statement, what does the parameter `130` refer to?

```
image(img1, 130, 0, 240, 120);
```

A) The image itself
B) The width of the image
C) The x-coordinate of the image
D) The height of the image
E) The y-coordinate of the image
F) None of these

2. What code would cause Processing to run one frame every 2 seconds?

A) `frameRate(0.5);`
B) `frameRate(120);`
C) `frameRate(2);`
D) `frameRate(30);`
E) `None of these`

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A

1. The box below represents the output window for a Processing program. Draw a rectangle inside the box that shows the location, the width and the height of the image displayed by the following Processing code: /* 7 points */

```
size( 500, 120 );
image( img1, 250, 100, 250, 20 );
```

1. The box below represents the output window for a Processing program. Draw a rectangle inside the box that shows the location, the width and the height of the image displayed by the following Processing code: /* 7 points */

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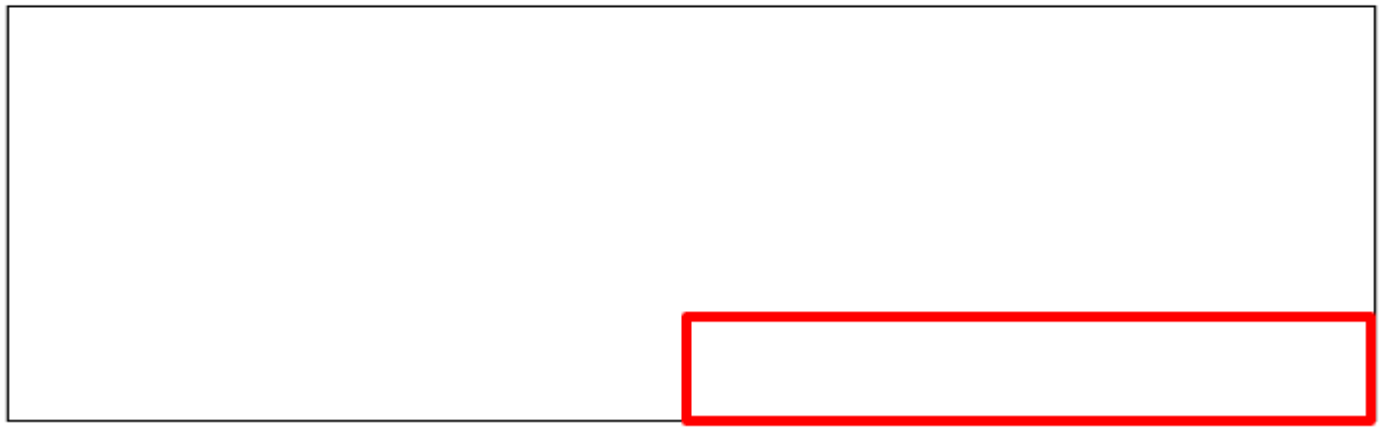

2. Describe in English what happens when the following program is executed, and the timing of what happens: /* 7 points */

```
void draw() {
    background(0);
    int currentTime = millis();
    stroke(255);

    if ( currentTime < 2000 ) {
        background( 0 );
        line( 100, 100, 0, 0 );
    }
    else if ( currentTime < 4000 ) {
        background( 0 );
        line( 100, 100, width, height );
    }
    else if ( currentTime < 6000 ) {
        background( 0 );
        ellipse( 50, 50, 50, 50 );
    }
}
```

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```

for first 2 seconds, a line is drawn from upper-left corner of window to position (100, 100);
then for next 2 seconds, a line is drawn from lower-right corner of window to position (100, 100);
then for next 2 seconds, a circle with a diameter of 50 pixels is drawn centered at position (50, 50);
then window is blank for rest of time program runs

Fill in the blanks in this Processing code so that it flips a coin 500 times and counts how many heads and how many tails were flipped. /* 7 points */

```
int numHeads = 0;
int numTails = 0;
for ( int flipNum = ______ ; _____________ ; flipNum = _________) {
   float percentage = random( 0, 100 );

   if ( percentage < _____ ) {
        numHeads = numHeads + 1;
   }
   else {
        numTails = numTails + 1;
   }
}
print( “heads = “ );
println( numHeads );
print( “tails = “ );
println( numTails);
```

3. Fill in the blanks in this Processing code so that it flips a coin 500 times and counts how many heads and how many tails were flipped. /* 7 points */

```
int numHeads = 0;
int numTails = 0;

for ( int flipNum = ___1___ ;___flipNum <= 500___;  flipNum = ___flipNum + 1___ ) {

    float percentage = random( 0, 100 );


    if ( percentage < _____50_____ ) {

        numHeads = numHeads + 1;
    }
    else {

        numTails = numTails + 1;
    }
}

print( "heads = " );
println( numHeads );
print( "tails = " );
println( numTails);
```