

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

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

- | | |
|---------------------------------|--------------------------------|
| A) <code>frameRate(0.5);</code> | D) <code>frameRate(30);</code> |
| B) <code>frameRate(120);</code> | E) None of these |
| C) <code>frameRate(2);</code> | |

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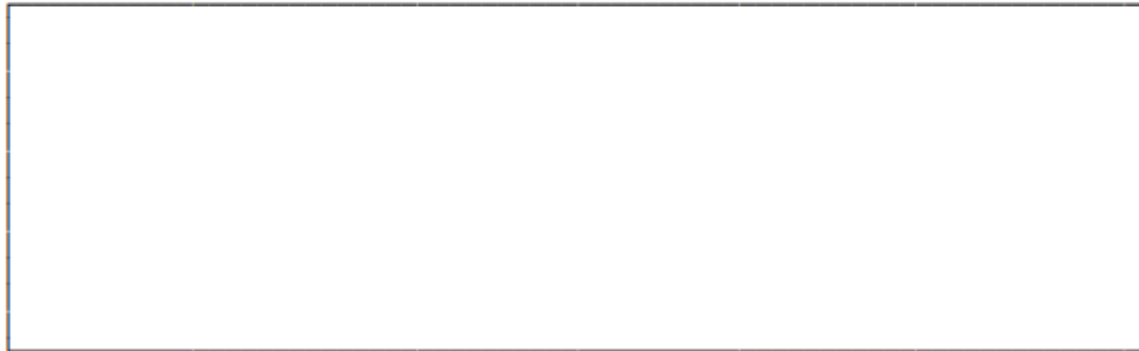
- | | |
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C

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 );
```



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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 );
```


Short Answer (continued):

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++ ) {
    float percentage = random( 0, 100 );

    if ( percentage < 50 ) {
        numHeads = numHeads + 1;
    }
    else {
        numTails = numTails + 1;
    }
}
print( "heads = " );
println( numHeads );
print( "tails = " );
println( numTails );
```