

Feedback — Quiz 7b

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Thank you. Your submission for this quiz was received.

You submitted this quiz on Sat 5 Mar 2016 6:36 PM PST. You got a score of 86.00 out of 100.00. You can [attempt again](#), if you'd like.

Question 1

The class code provided for this week's mini-project supports an `ImageInfo` class to organize the data associated with the image. Consider an `ImageInfo` object of the following form:

```
ImageInfo([45, 45], [90, 90], 35)
```

What is the radius of the shape associated with this `ImageInfo` object?

You entered:

Your Answer	Score	Explanation
35	✓ 10.00	This is the radius of the circle used in computing collisions involving the shape.
Total	10.00 / 10.00	

Question 2

Consider the provided `ImageInfo` and `Sprite` class code. Assume we want ten asteroids on the screen, each looking exactly alike and using the same image file. How many `ImageInfo` objects and how many `Sprite` objects should we create?

Your Answer	Score	Explanation
<input checked="" type="radio"/> one <div>ImageInfo</div> object, ten <div>Sprite</div> objects	<div>✓</div> 15.00	Since there is one image file, there should be one <div>ImageInfo</div> . Since there are ten displayed asteroids, each potentially with its own velocity and angle, there should be ten <div>Sprite</div> objects.
<input type="radio"/> ten <div>ImageInfo</div> objects, ten <div>Sprite</div> objects		
<input type="radio"/> ten <div>ImageInfo</div> objects, one <div>Sprite</div> object		
<input type="radio"/> one <div>ImageInfo</div> object, one <div>Sprite</div> object		
Total	15.00	
	/	
	15.00	

Question 3

The version of Rice Rocks that we will implement uses only a single asteroid image and spawns multiple instances of the provided

Sprite

 class using this image. In the original Asteroids, a large asteroid split into two medium asteroids which themselves split into two small asteroids.

If we only had one image and wanted to implement asteroids of varying sizes in our version, how should we do this?

Your Answer	Score	Explanation
<input checked="" type="radio"/> Add a size attribute in the <div>Sprite</div> class and a size	<div>✓</div> 15.00	Adding a size attribute in the <div>Sprite</div> class allows each instance of a sprite to have a different size that can use in the draw method for the sprite.

parameter to `Sprite.__init__`.

Use the size attribute when drawing the sprite.



Store the size in a global variable. Use this variable when drawing a sprite.



Store a list of sizes for each asteroid in a global variable. Use the corresponding size when drawing a sprite.



Add a size attribute in the `ImageInfo` class and a size parameter to `ImageInfo.__init__`. Use this attribute when drawing the sprite.

Total	15.00
	/
	15.00

Question 4

What is the supported range of sound volumes in `set_volume`? You can find out in the CodeSkulptor [documentation](#).

Your Answer	Score	Explanation
<input checked="" type="radio"/> 0 to 10	✗ 0.00	
<input type="radio"/> 0 to 1		
<input type="radio"/> 1 to 100		
<input type="radio"/> -1 to 1		
Total	0.00 / 10.00	

Question 5

Assume you have code that loads and plays a sound. Unfortunately, you don't hear anything. Which of the following could be a reason?

Your Answer	Score	Explanation
<input checked="" type="checkbox"/> A file found with the given URL isn't a sound file recognized by your browser.	✓ 2.00	
<input checked="" type="checkbox"/> You have set the volume level to 0.	✓ 2.00	
<input checked="" type="checkbox"/> Your browser is loading a big sound file. Wait longer.	✓ 2.00	
<input checked="" type="checkbox"/> No file is found with the given URL.	✓ 2.00	
<input checked="" type="checkbox"/> The given URL exists, but is inaccessible due to network problems.	✓ 2.00	
Total	10.00 / 10.00	

Question 6

Which of the following are valid HTML representations of the color blue?

Refer to this page on [HTML color values](#).

Your Answer	Score	Explanation
<input checked="" type="checkbox"/> "green"	✗ 0.00	
<input checked="" type="checkbox"/> "rgb(0, 0, 255)"	✓ 2.00	
<input checked="" type="checkbox"/> "#FFFF00"	✗ 0.00	

<input checked="" type="checkbox"/> "blue"	✓	2.00
<input checked="" type="checkbox"/> "#0000FF"	✓	2.00
Total		6.00 / 10.00

Question 7

Imagine we are writing code for something like Rice Rocks, where things are moving in 2D toroidal space, i.e., the wrap around all four sides of the screen. How can we eliminate the duplicated code in the following function?

```
def move(position, vector):
    """Moves the position by the given vector in 2D toroidal space."""
    position[0] = (position[0] + vector[0]) % SCREEN_SIZE[0]
    position[1] = (position[1] + vector[1]) % SCREEN_SIZE[1]
```

Your Answer	Score	Explanation
<input checked="" type="checkbox"/> <pre>def move_dimension(dimension, position, vector): """Moves the position component by the given vector component in 1D toroidal space.""" position[dimension] = (position[dimension] + vector[dimension]) % SCREEN_SIZE[dimension] def move(position, vector): """Moves the position by the given vector in 2D toroidal space.""" move_dimension(0, position, vector) move_dimension(1, position, vector)</pre>	✓ 4.00	
<input type="checkbox"/> <pre>def move(position, vector): position = [(pos + vec) % size for pos in position for vec in vector for size in SCREEN_SIZE]</pre>	✓ 1.00	No, this doesn't have the same behavior.
<input type="checkbox"/> <pre>NUM_DIMENSIONS = 2 def move(position, vector): for d in range(NUM_DIMENSIONS): return position[d] = (position[d] + vector[d]) % SCREEN_SIZE[d]</pre>	✓ 1.00	No, this doesn't have the same behavior.
<input checked="" type="checkbox"/>	✓ 4.00	

```
NUM_DIMENSIONS = 2
def move(position, vector):
    """Moves the position by the given vector in 2D toroidal space."""
    for d in range(NUM_DIMENSIONS):
        position[d] = (position[d] + vector[d]) % SCREEN_SIZE[d]
```

Total	10.00 / 10.00
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Question 8

What is the primary reason for not duplicating code? It was the only reason mentioned in the Programming Tips #7 video.

Your Answer	Score	Explanation
<input type="radio"/> It takes less time to write the code.		
<input checked="" type="radio"/> You only need to get the code correct once.	✓ 10.00	
<input type="radio"/> It leads to faster code.		
Total	10.00 / 10.00	

Question 9

What is Mike Massimino's greatest accomplishment?

Your Answer	Score	Explanation
<input checked="" type="radio"/> Appearing on An Introduction to Interactive Programming in Python	✓ 10.00	Of course, how can you top this!
<input type="radio"/> Being the first person to use Twitter in space		
<input type="radio"/> Fixing the Hubble Space Telescope in space		
<input type="radio"/> Appearing on The Big Bang Theory		
<input type="radio"/> Receiving his PhD from MIT		

Total

10.00 /
10.00