Name:
Date:

15.07 Picture Lab Worksheet

Directions: Make note of your responses to the following questions as you work through the activities and exercise in the lesson.

Activity 5 Questions

Question	Yes	No
1. Is the method `getPixels2D` in the `Picture.java` class?		**T**
2. Is the method `getPixels2D` in the `SimplePicture.java` class?	**T**	
3. Will the following code compile? `DigitalPicture p = new DigitalPicture();`		**T**
4. Assuming a no-argument constructor exists for `SimplePicture`, will the following code compile? `DigitalPicture p = new SimplePicture();`	**T**	
5. Assuming a no-argument constructor exists for `Picture`, will the following code compile? `DigitalPicture p = new Picture();`	**T**	
6. Assuming a no-argument constructor exists for `Picture`, will the following code compile? `SimplePicture p = new Picture();`	**T**	
7. Assuming a no-argument constructor exists for `SimplePicture`, will the following code compile? `Picture p = new SimplePicture();`		**T**

Activity 5 Exercise Results

1. Describe your method for `keepOnly` red, blue, or green.
   I chose to create a keepOnlyRed() method and the way I did this was by setting every blue and green pixel value to 0.
2. `For the negate` method, paste your code related to calculating and setting the

values for red, blue, and green.

```
imageArr[i][j].setRed(255 - imageArr[i][j].getRed());
imageArr[i][j].setGreen(255 - imageArr[i][j].getGreen());
imageArr[i][j].setBlue(255 - imageArr[i][j].getBlue());
```

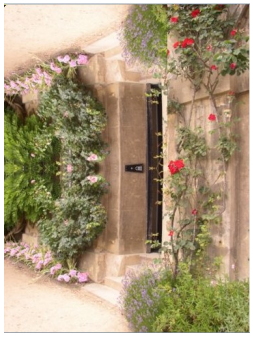
3. Paste a copy of the image that is the result of calling the `grayscale.`

4. For the method `fixUnderwater,` describe the algorithm you'd propose to accomplish the task.

If I were to approach this problem, I would look for pixels that have a blue value above a certain threshhold and make them darker, thereby increasing the contrast between the water and the fish.

1. Activity 6 Exercise ResultsPaste the image that is the result of calling the method `mirrorVerticalRightToLeft`.

2. Describe the algorithm for the method `mirrorHorizontal` works.
   The algorithm goes from the top of the image to the bottom and replaces the bottom pixel of focus to its corresponding top pixel.
3. `Paste the image that is the result of calling the method mirrorHorizontalBotToTop.`



Activity 7 Questions

1. How many times would the body of this nested `for` loop execute? 90

```
for(int row = 7; row < 17; row++)
    for(int col = 6; col < 15; col++)
```

2. How many times would the body of this nested `for` loop execute? 112

```
for(int row = 5; row <= 11; row++)
    for(int col = 3; col <= 18; col++)
```

Activity 7 Exercise Results

1. What value is displayed for `count` after the nested loop ends in the `mirrorTemple` method? 18410

2. Paste the image that is the result of calling the method `mirrorArms`.

3. Paste the image that is the result of calling the method `mirrorGull`.