Pixel Spreadsheet - Mini Project 3

After working through the Mini-Project Tutorial complete the following and submit to Gradescope.

ALL RESPONSES MUST FIT IN THE SPACE GIVEN.

You may reformat, however, each question must be placed on the same page number as this template.

Answers must be in complete sentences and paragraphs, be thoughtful, and explain your thought process. Sloppy, super short, rushed, or otherwise not serious answers may receive a 0. Answers are expected to roughly fit the space given.

1. Try out the educational app at PHet . What do the functions ?A, ?B, and ?C do to the image cards? Explain each and the process you used to figure it out.

2. In the color tutorial we saw that the puppy image was visible even without adding the color formatting to the spreadsheet.

   What conditions of this particular image made that possible? Explain.

   Do you think all photos will show traces of their image without color information? Explain.

3. Make a copy of the Puppy Google spreadsheet. Edit this document to give the puppy cool glasses, a hat, or bow tie using a new color recipe from the Swatch spreadsheet. Take a screenshot to document your result. For best results, zoom out. Or download as a PDF, select print, portrait, and fit to width, then screenshot. Insert a screenshot here of the result with a few words about what you did.

4. Explain what we would need to do to make a negative or inverted image of the puppy. What value would you add or subtract? Explain in detail. Do not do this to the whole image, but try an example on a couple cells and include 2 small screenshots of the before/negative image. (or if you are an Excel master - flip the whole thing and explain your result)

5. Find a photo (Portrait orientation) you have taken (or from the internet) and make a Pixel Spreadsheet from the link on page 9 of the tutorial. The photo should be relatively simple, like the examples, and not have too much detail. Faces work great. If you do not have EXCEL, download the file into Google docs and save as a Google Sheet. Take a screenshot of your Pixel spreadsheet zoomed out enough to see the image and upload here.

6. Now use some "hands on Photoshop" to improve the image. Lighten? Darken? Add features? Upload your new photo spreadsheet here and in the space above the photo(s) . Explain what "Hands On Photoshop" you did and why. (Since this is the last question you can use as many pages as you need.)