**CS1033 Pixel and Resolution Review**

1. What should you set the dpi for an image you wish to print? _____**300dpi**_____

2. If you have an image that is 400 pixels by 600 pixels and the dpi is 200, what size will it print at? : ___**2 inches by 3 inches (400/200 and 600/200)**_____

3. If you want to print an image at 5" by 7", what is the minimum size it must be in pixels for it not to look pixelated: __ **1500 pixels by 2100 pixels → (5*300 by 7*300)__ __**

4. Assume you have an image that is 400 pixels by 300 pixels, roughly draw it on the following monitor that has a resolution that is 800 by 600 pixels (put the bottom left corner of the image in the bottom left corner of the screen)
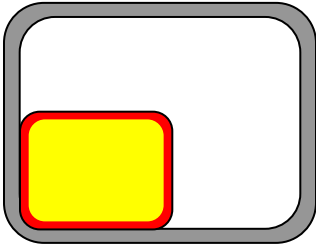
5. Draw the same image (400 by 300) on the same monitor that now has a resolution of 1600 by 1200 pixels.
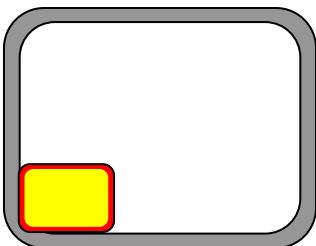
6. If I have an image that is 600 pixels by 900 pixels and I print it at a resolution of 150 dpi, how big will the image be? __**4 inches by 6 inches (600/150 by 900/150**)_____

7. Which of the following images will **print** the largest?
    a. 300 pixels by 300 pixels at 100dpi
    b. 300 pixels by 300 pixels at 50dpi
    c. 300 pixels by 300 pixels at 10dpi (30 inches by 30 inches)
    d. They will all be the same size

8. Which of the following images will have the largest file size (in kilobytes)?
    a. 300 pixels by 300 pixels at 100dpi
    b. 300 pixels by 300 pixels at 50dpi
    c. 300 pixels by 300 pixels at 10dpi
    d. They will all be the same size

9. How many Megapixels is an image that is 2000 pixels by 3000 pixels? **_6,000,000 pixels → 6 Megapixels**_____

10. To calculate the number of bytes an uncompressed true colour image will be, you multiply the width pixels by the height pixels by 3 bytes (1 byte for the red= 2^8bits, 1 byte for the green = 2^8bits, 1 byte for the blue = 2^8bits,). This is called a .raw file. Based on the above formula, how many bytes would an image in .raw format be if it was 200 pixels by 300 pixels: **_200*300*3→ _180,000 bytes** ____

11. How many kilobytes would the above image be (a kilobyte is 1024 bytes, but to make the calculation easier, assume a kilobyte is 1000 bytes): **__180000/1024 → __175 kilobytes (180000/1000 → about 180 kilobytes)_**