

Name: _____

Quiz 09: Light and Color

Answer each of the following questions using the information you collected during the lab. Please submit your completed quiz before you leave the lab. No papers will be accepted after the end of the lab period.

1. (1 point) When you turn the prism, the white light separates into its constituent colors. Which color is bent the **most**?

A) Red.	D) Green.
B) Orange.	E) Blue.
C) Yellow.	F) Violet.
2. (1 point) When you turn the prism, the white light separates into its constituent colors. Which color is bent the **least**?

A) Red.	D) Green.
B) Orange.	E) Blue.
C) Yellow.	F) Violet.
3. (1 point) A **blue** recycling bin will appear what color on a **photographic negative**?

A) Red.	D) Cyan.
B) Green.	E) Magenta.
C) Blue.	F) Yellow.
4. (3 points) Complete the table below for mixing **pigments**:

PIGMENTS	RESULT
RED + GREEN	
GREEN + BLUE	
BLUE + RED	

5. (1 point) Your color printer uses cartridges of

A) Red, green, and blue ink.
B) Cyan, magenta, and yellow ink.
C) every possible color imaginable.
6. (3 points) Complete the table below for mixing **light**:

LIGHT	RESULT
RED + GREEN	
GREEN + BLUE	
BLUE + RED	

7. (1 point) When you mix red + green + blue light,

A) the colors cancel, and you get a black screen.
B) the colors combine to make white light.
C) red and blue cancel, leaving green light.
D) red and green cancel, leaving blue light.
E) green and blue cancel, leaving red light.

8. (15 points) Complete the table below for observing the colored dots using the different colors of light.

LIGHT SOURCE	DOTS	
	RED	GREEN
RED		
GREEN		
BLUE		
R+G=Y		
R+B=M		
B+G=C		
WHITE		

LIGHT SOURCE	DOTS	
	YELLOW	BLUE
RED		
GREEN		
BLUE		
R+G=Y		
R+B=M		
B+G=C		
WHITE		

9. (2 points) Under which condition will the **yellow** dots seem to **disappear**?

A) Red light, white screen.
B) Blue light, white screen.
C) White light, black screen.
D) The yellow dot disappears under each of the above conditions.
10. (2 points) Under which of the following conditions will the **red** dots be **visible**?

A) Red light, white screen.
B) Red light, black screen.
C) The red dots are only visible using white light.
D) Trick question! There were no red dots on the screen!