

Color Sensor Lesson 3 Summative Assessment

1. Why do blue jeans appear blue?
 - a. The cloth is absorbing only blue wavelengths.
 - b. The cloth is reflecting blue wavelengths. (correct answer)
 - c. The cloth is absorbing all the wavelengths.
 - d. The cloth is reflecting all wavelengths.

2. Why does black have an RGB value of (0, 0, 0)?
 - a. Black objects absorb only black wavelengths.
 - b. Black objects reflect only black wavelengths.
 - c. Black objects absorb all the wavelengths. (correct answer)
 - d. Black objects reflect all the wavelengths.

3. When an object has an RGB value of (255, 0, 0), which of the following is true?
 - a. The object absorbs only red waves.
 - b. The object reflects only red waves. (correct answer)
 - c. The object reflects green waves.
 - d. The object reflects blue waves.

4. When an object has an RGB value of (200, 100, 100), which of the following is true?
 - a. The object absorbs more green and blue than red waves. (correct answer)
 - b. The object reflects more green and blue than red waves.
 - c. The object absorbs more red than blue and green waves.
 - d. The object reflects more blue than green and red waves.

5. When you scan a purple object, which of the following is likely true?
 - a. The object absorbs equal parts red and blue.
 - b. The object reflects equal parts red and blue. (correct answer)
 - c. The object absorbs only red and blue.
 - d. The object reflects only green waves.

6. How does the color sensor detect color?
 - a. The sensor shines a bright white light so that a camera can tell the computer what color is being seen.
 - b. The sensor can see the colors absorbed by objects by using a microscope to see inside the objects.
 - c. The sensor tells the computer what to think by guessing which color is present based on how light/dark each part of the object is..
 - d. The sensor shines a white light and once reflected, the sensor measures how much red, green and blue frequencies return to the sensor. (correct answer)

7. Guess the RGB value for this image:

- R = **255**
- G = **255**
- B = **0**



8. Guess the RGB value for this image:

- R = **255**
- G = **200**
- B = **220**



9. Guess the RGB value for this image:

- R = **150**
- G = **200**
- B = **255**



10. Guess the RGB value for this image:

- R = **190**
- G = **80**
- B = **0**

