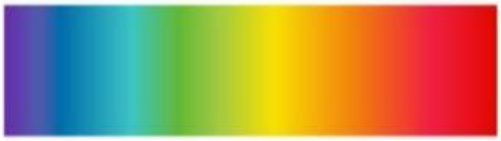
Choose the correct answers for the following questions.



8- Which of the following lights has the lowest frequency?

A. The violet light.
B. The red light.
C. The yellow light.
D. The green light.

9- Which of the following lights has the lowest frequency?

A. The violet light.
B. The green light.
C. The yellow light.
D. The blue light.

10- Which of the following lights has the highest frequency?

A. The violet light.
B. The red light.
C. The yellow light.
D. The green light.

11- Which of the following lights has the longest wavelength?

A. The violet light.
B. The green light.
C. The yellow light.
D. The blue light.

LIVEWORKSHEETS

12- Which of the following lights has the shortest wavelength?

A. The red light.
B. The green light.
C. The yellow light.
D. The blue light.

13- Which of the following lights has the lowest energy?

A. The red light.
B. The green light.
C. The yellow light.
D. The blue light.

Answer the following questions:

1-

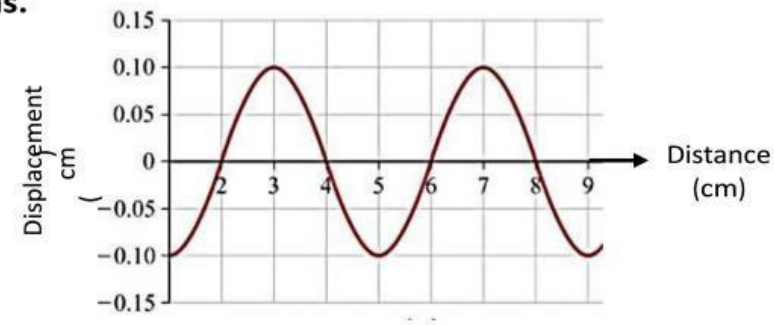
2- Study the table to answer the following questions.

What is the speed of light in water?	×10^8
In which medium the speed of light is the highest?	×10^8
In which medium the speed of light is the lowest?	×10^8

Material	Refractive index	Speed of light /ms^{-1}
Air	1.00	3.0×10^8
Water	1.33	2.3×10^8
Perspex	1.49	2.0×10^8
Glass	1.50	2.0×10^8
Diamond	2.42	1.2×10^8

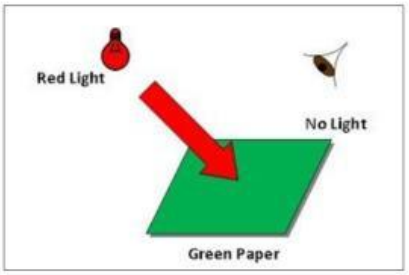
LIVEWORKSHEETS

3- Use the data on the (Displacement- Distance) graph to answer the questions.



- What is the wavelength of this wave? .....cm.....
- What is the amplitude of this wave? .....cm.....

4- If a red light falls on a green paper.



- What color would the apple look like?

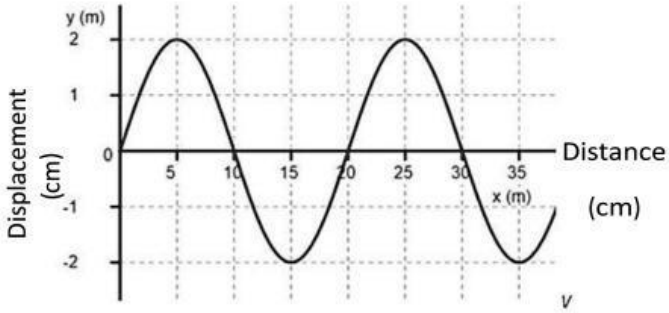
.....

- Explain your answer.

Because the paper will .....(absorbs, reflects, refracts) .....
the red color and (no, all) light will reflect to the eye.

LIVEWORKSHEETS

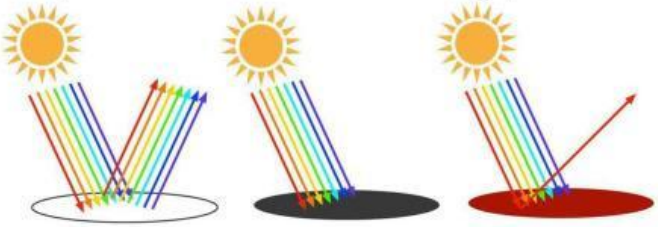
5- Use the data on the (Displacement- Distance) graph to answer the questions.



- What is the wavelength of this wave? ……cm……..
- What is the amplitude of this wave? ……cm……
- How can you change the frequency of this wave to make its wavelength shorter?

I have to (increase,decrease) the frequency then the wavelength will decrease.
……

6- Relay on the bar photo to answer the following questions:



- What are the colors of the light spectrum?

……
Violet - Indigo - - Green- - Orange -
……

- Which color reflects all the light? ……..
- Which color absorbs all the light? ……
- The red color reflects only the …… light and …… all the others.

LIVEWORKSHEETS

Order **Electromagnetic waves** from most energetic to lowest energetic waves

Order **visible light** from most energetic to lowest energetic waves.

LIVEWORKSHEETS