Directions: Read each question carefully, and choose the best answer from the options provided.

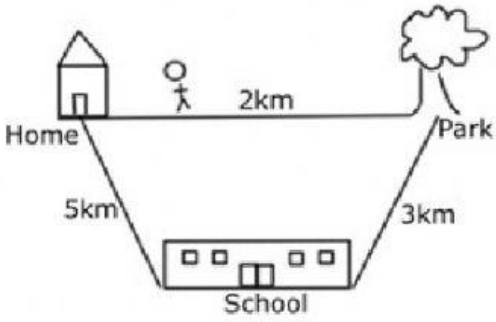
1. A seagull was 72 meters west of a pier, flying east at a constant velocity. In 4 seconds, it flew one-third of the way to the pier. What was the seagull's velocity?

A. 6 m/s
B. 18 m/s
C. 16 m/s
D. none of the above

2. A raindrop fell directly toward the ground at a constant velocity for 6 seconds. It has a velocity of 3 m/s. How much distance will the raindrop cover in half the time?

A. 9 m
B. 18 m
C. 2 m
D. 3 m

Use the figure below to answer number 3.



3. Jerry walked from home to school and then from the school to the park. What is his total displacement?

A. 8 km
B. 8 km west
C. 2 km west
D. 2 km

4. Which among the following has the greatest wavelength?

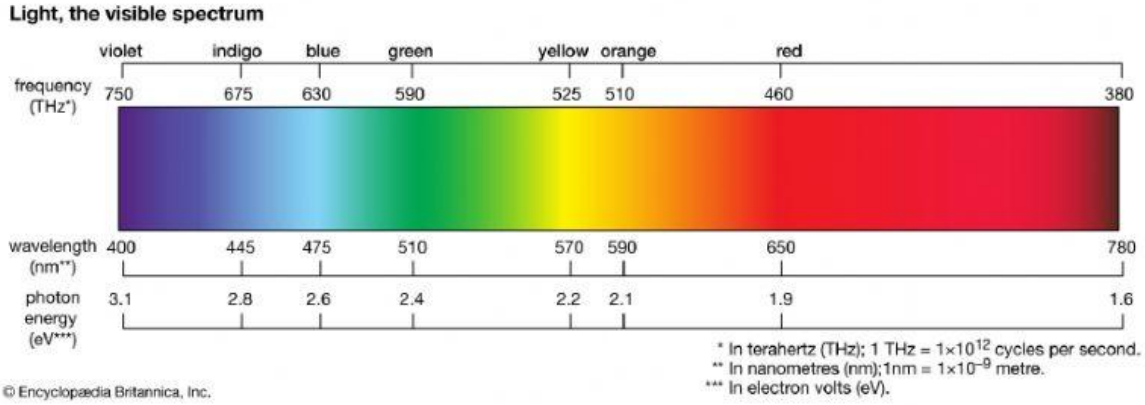
A. red
B. blue
C. yellow
D. green

5. As we move from yellow to violent in the visible light spectrum, what happens to wavelength?

A. it stays the same
B. it becomes faster
C. it decreases
D. it increases

LIVEWORKSHEETS

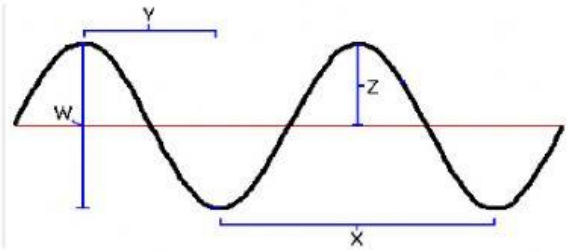
Use the figure below to answer number 6.



6. Which among the following colors has a shorter wavelength than red but has a greater wavelength than green?

A. orange
B. indigo
C. violet
D. none of the above

Use the figure below to answer number 7.



7. Which letter corresponds to the wavelength of the wave?

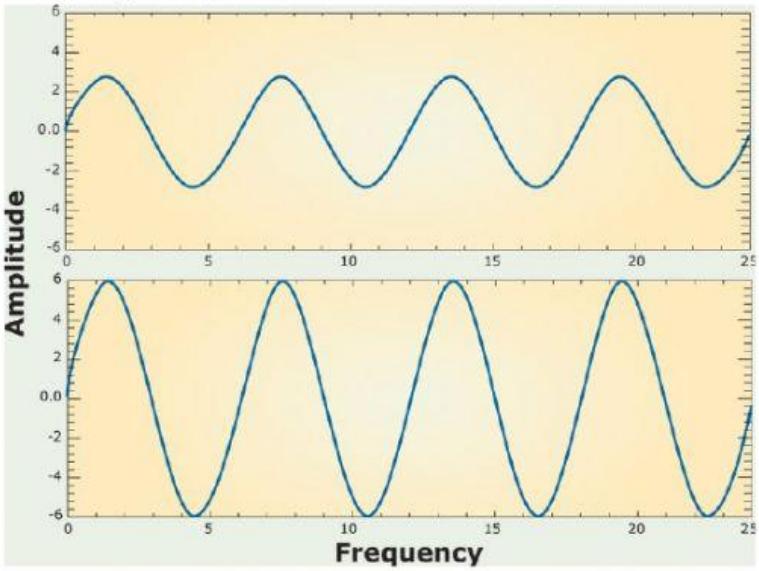
A. Y
B. Z
C. Y
D. X

8. Which among the following statements is FALSE regarding waves?

A. Waves transfer energy from one place to another.
B. Wavelength describes the distance between a point on one wave and the identical point of the next wave.
C. Wave frequency describes how much waves pass through a point at a given point of time.
D. The speed of the wave can be measured by dividing frequency by the wavelength.

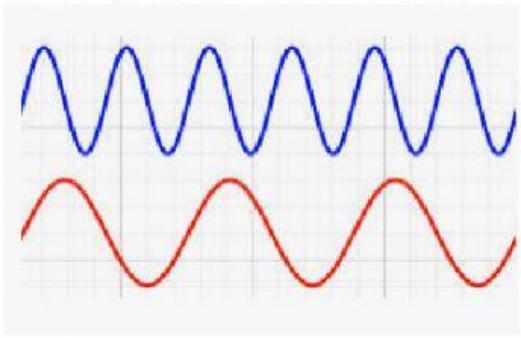
LIVEWORKSHEETS

Use the figure below to answer number 9.



9. Which wave has more energy? Why?
   A. Top wave because the amplitude is smaller
   B. Bottom wave because the amplitude is larger
   C. They are the same because the wavelengths are equal
   D. Top because the rarefactions are closer together

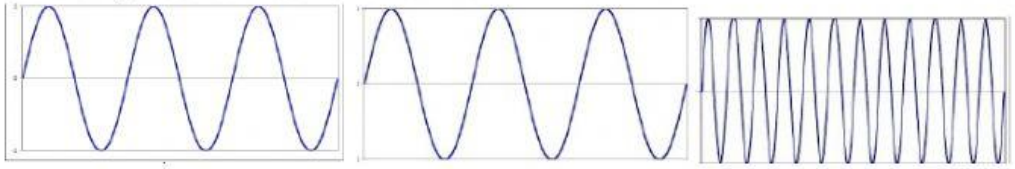
Use the figure below to answer number 10.



10. Which wave has a higher frequency?
   A. both have the same frequency
   B. not enough information is given
   C. blue wave
   D. red wave

LIVEWORKSHEETS

Use the figures below to answer number 11.



A B C

11. Which figure will have the highest pitch?

A. figure A
B. figure B
C. figure C
D. figure D

12. Four instruments are playing a particular sound. What will you use to determine their respective loudness?

A. amplitude
B. pitch
C. frequency
D. wavelength

13. Which best completes the following statement? A _____is a thin conductor with a low melting point that is attached to a circuit. When heats up and melts then current in the circuit reaches a safe limit. As a result, the circuit is broken and the current flow is halted.

A. Earth wires
B. LAN wires
C. circuit breaker
D. fuse

14. Which acts as an automatic fuse that whenever there is an excess amount of current it automatically switches off, thus breaking the circuit? It can then be turned back on like a switch.

A. Earth wires
B. Three pin plug
C. circuit breaker
D. fuse

15. What do you call an event wherein a person touches live or damaged wires, causing current to flow through the body?

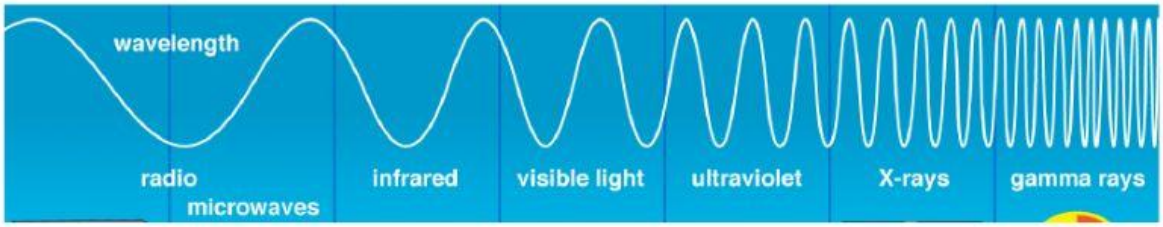
A. bioshock
B. short circuit
C. electric show
D. electric hazard

16. Which statement best describes the relationship between frequency and wavelength in electromagnetic waves?

A. They are directly proportional.
B. They are inversely proportional.
C. They are NOT related at all.
D. If one increases, the other increases exponentially.

LIVEWORKSHEETS

Use the figure below to answer numbers 17 and 18.



17. Which among the following has the highest frequency?
    A. microwaves
    B. visible light
    C. ultraviolet
    D. gamma rays

18. Which among the following has the highest wavelength?
    A. microwaves
    B. visible light
    C. ultraviolet
    D. gamma rays

19. Which among the following best describes the relationship between speed and wavelength?
    A. An increase in wavelength translates to a decrease in speed.
    B. An increase in wavelength translates to an increase in speed.
    C. An increase in wavelength does not translate to an increase in speed.
    D. It depends on the situation.

20. What is the formula for wave speed?
    A. wavelength x pitch
    B. wavelength x frequency
    C. wavelength x amplitude
    D. amplitude x frequency

21. Why does an increase in wavelength NOT result in an increase in speed?
    A. wavelength has nothing to do with wave speed
    B. an increase in wavelength is accompanied by a decrease in frequency
    C. an increase in wavelength is accompanied by an increase in frequency
    D. amplitude x frequency

LIVEWORKSHEETS

22. Which among the following modes of heat transfer is shown when a spoon is heated as it touches water?

A. conduction
B. diffusion
C. convection
D. radiation

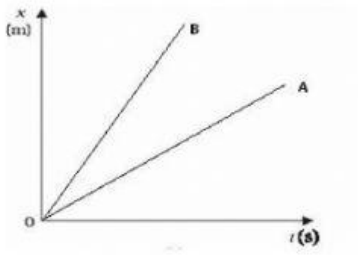
23. What mode of heat transfer allows heat to be transferred without a medium?

A. conduction
B. diffusion
C. convection
D. radiation

24. Ocean currents are important in ocean systems in the transfer of heat from the tropics to colder regions. Which mode of heat transfer is exhibited when heat is transferred via currents?

A. conduction
B. diffusion
C. convection
D. radiation

Use the figure below to answer number 25.

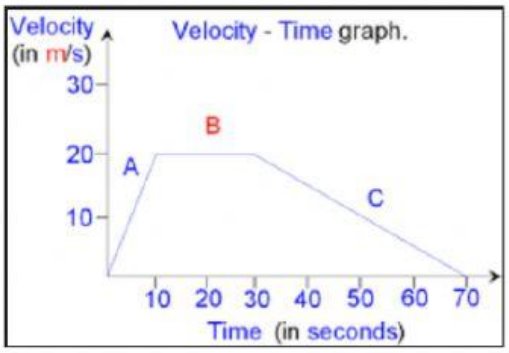


25. Which among the following statements is true?

A. Speed of object A is greater than object B
B. Speed of object A is lesser than object B
C. Both have same speed
D. Speed of Object A is double the speed of Object B.

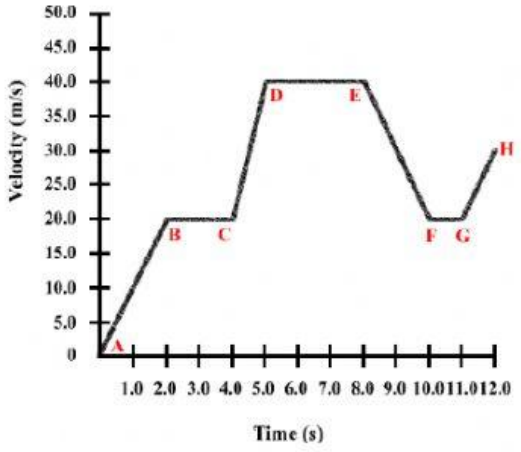
LIVEWORKSHEETS

Use the figure below for number 26.



26. What is the object experiencing in segment C?
    A. positive acceleration
    B. negative acceleration
    C. constant velocity
    D. not moving

Use the figure below for number 27.



27. In which segment is the object accelerating?
    A. A to B
    B. B to C
    C. E to F
    D. D to E

LIVEWORKSHEETS

Use the figure below to answer number 28.



28. This is a lava lamp. When the light bulb heats the wax, the wax rises. When the wax cools, it falls. What mode of heat transfer is exhibited here?

A. conduction
B. diffusion
C. convection
D. radiation

29. After a long day, the roof of a building is hot. During the night, you can feel the heat coming from the roof despite NOT touching it. What mode of heat transfer is exhibited?

A. conduction
B. diffusion
C. convection
D. radiation

30. Which mode of heat transfer is possible when two solids are directly touching each other?

A. conduction
B. diffusion
C. convection
D. radiation

Use the figure below to answer number 31.

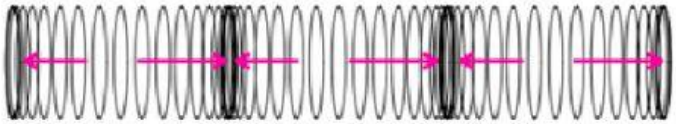


31. What type of wave is exhibited by the figure?

A. transverse wave
B. longitudinal wave
C. there is not enough information given
D. magnetic wave

LIVEWORKSHEETS

Use the figure below to answer number 32.



32. What type of wave is exhibited by the figure?

A. transverse wave
B. longitudinal wave
C. there is not enough information given
D. magnetic wave

33. What wave is exhibited when the particles of a medium are vibrating perpendicular to the direction of the wave?

A. transverse wave
B. longitudinal wave
C. sound wave
D. water wave

LIVEWORKSHEETS