

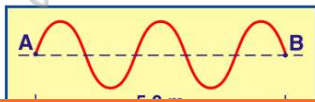


Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

- 1 A **tuning fork** vibrating in air produces sound waves. These waves are best **classified** as
- A transverse, because the air molecules are vibrating parallel to the direction of wave motion
  - B transverse, because the air molecules are vibrating perpendicular to the direction of wave motion
  - C longitudinal, because the air molecules are vibrating parallel to the direction of wave motion
  - D longitudinal, because the air molecules are vibrating perpendicular to the direction of wave motion

- 3 In the diagram below, the **distance** between points A and B on a wave is 5.0 meters. The **wavelength** of this wave is

- A 1.0 m
- B 2.0 m
- C 5.0 m
- D 10.0 m



5  
A  
C  
t  
t  
t  
v  
A  
E



## PREVIEW

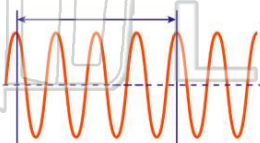
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7  
A  
f  
c  
s  
c

- A greater in amplitude
- B a transverse wave rather than a longitudinal wave
- C higher in pitch
- D lower in pitch



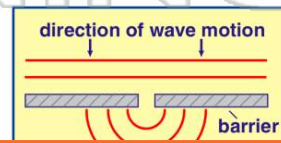
- 9 The **product** of a wave's **frequency** and its **period** is
- A one
  - B its velocity
  - C its wavelength
  - D Planck's constant



- 2 A student in a band notices that a drum **vibrates** when another instrument emits a **certain frequency** note. This **phenomenon** illustrates
- A reflection
  - B resonance
  - C refraction
  - D diffraction



- 4 The **spreading** of a wave into the region behind an **obstruction** is called
- A diffraction
  - B absorption
  - C reflection
  - D refraction



- B higher pitch
- C shorter wavelength
- D greater loudness

- 10 A periodic wave having a **frequency** of 5.0 hertz and a **speed** of 10 meters per second has a **wavelength** of
- A 0.50 m
  - B 2.0 m
  - C 5.0 m
  - D 50 m



## ANSWER KEY

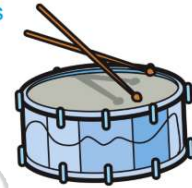
A **tuning fork** vibrating in air produces sound waves. These waves are best **classified** as

- A** transverse, because the air molecules are vibrating parallel to the direction of wave motion
- B** transverse, because the air molecules are vibrating perpendicular to the direction of wave motion
- C** longitudinal, because the air molecules are vibrating parallel to the direction of wave motion
- D** longitudinal, because the air molecules are vibrating perpendicular to the direction of wave motion

(c)

A student in a band notices that a drum **vibrates** when another instrument emits a **certain frequency** note. This **phenomenon** illustrates

- A** reflection
- B** resonance
- C** refraction
- D** diffraction

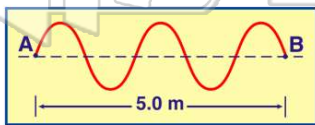


(b)

In the diagram below, the **distance** between points A and B on a wave is **5.0 meters**.

The **wavelength** of this wave is

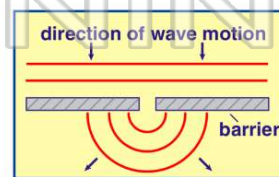
- A** 1.0 m
- B** 2.0 m
- C** 5.0 m
- D** 4.0 m



(b)

The **spreading of a wave** into the region behind an **obstruction** is called

- A** diffraction
- B** absorption
- C** reflection
- D** refraction



(a)



## PREVIEW

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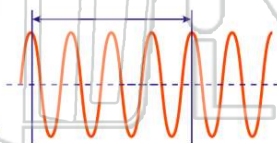
- B** a transverse wave rather than a longitudinal wave
- C** higher in pitch
- D** lower in pitch



- D** greater loudness

The **product** of a wave's **frequency** and its **period** is

- A** one
- B** its velocity
- C** its wavelength
- D** Planck's constant



(a)

A periodic wave having a **frequency** of **5.0 hertz** and a **speed** of **10 meters per second** has a **wavelength** of

- A** 0.50 m
- B** 2.0 m
- C** 5.0 m
- D** 50 m

(b)