

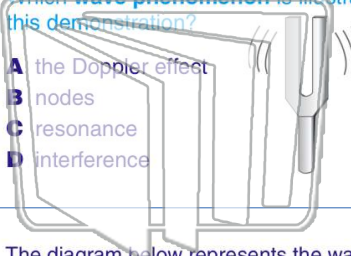


Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1

In a demonstration, a vibrating tuning fork causes a nearby second tuning fork to begin to vibrate with the same frequency. Which **wave phenomenon** is illustrated by this demonstration?

- A the Doppler effect
- B nodes
- C resonance
- D interference

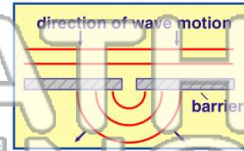


2

The diagram below shows wave fronts spreading into the region behind a **barrier**.

Which **wave phenomenon** is represented in the diagram?

- A reflection
- B refraction
- C diffraction
- D standing waves



3

The diagram below represents the wave pattern produced by two sources located at points A and B.

Which phenomena occur at the intersections?

4

A radar gun can determine the speed of a moving automobile by **measuring the difference in frequency** between emitted and reflected radar waves. This process

5



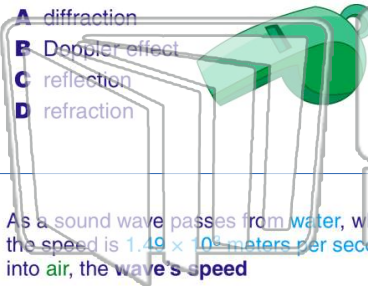
## PREVIEW

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7

from a referee's whistle in an open field even when standing **behind** the referee?

- A diffraction
- B Doppler effect
- C reflection
- D refraction



10

**pattern** if the two waves have

- A the same frequency, the same amplitude, and travel in the same direction
- B the same frequency, the same amplitude, and travel in opposite directions
- C the same frequency, different amplitudes, and travel in the same direction
- D the same frequency, different amplitudes, and travel in opposite directions

9

As a sound wave passes from **water**, where the speed is  $1.49 \times 10^3$  meters per second, into **air**, the wave's **speed**

- A decreases and its frequency remains the same
- B increases and its frequency remains the same
- C remains the same and its frequency decreases
- D remains the same and its frequency increases

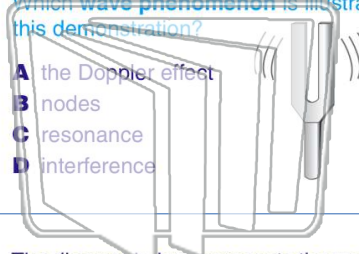
Which phenomenon occurs when an object **absorbs wave energy** that matches the object's **natural frequency**?

- A reflection
- B diffraction
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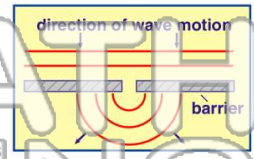
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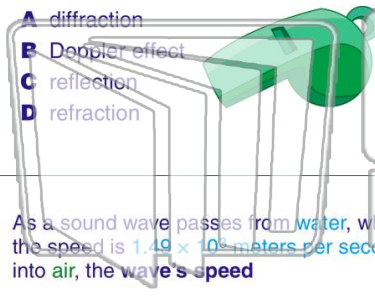
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