



Name _____ Class _____ Date _____

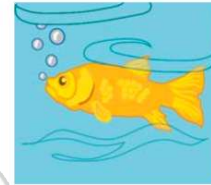
1 The driver of a car blows the horn as the car approaches a crosswalk. Compared to the **actual pitch** of the horn, **the pitch observed by a pedestrian in the crosswalk is**

- A lower
- B higher
- C the same

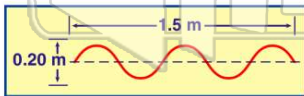


2 What **type of wave** is **sound** traveling in water?

- A torsional
- B transverse
- C elliptical
- D longitudinal



3 What are the **amplitude** and **wavelength** of the wave shown below?



- A amplitude = 0.10 m, wavelength = 0.30 m
- B amplitude = 0.10 m, wavelength = 0.60 m

4 An opera singer's voice is able to break a thin crystal glass when the **singer's voice** and the **vibrating glass** have the **same**

- A frequency
- B speed
- C amplitude



PREVIEW

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7 A s... n... v... c...
A higher frequency and shorter wavelength
B higher frequency and longer wavelength
C lower frequency and shorter wavelength
D lower frequency and longer wavelength

- B 5.0 Hz
- C 16 Hz
- D 80 Hz



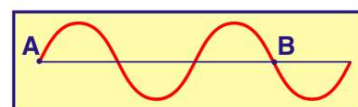
9 An electric guitar is generating a sound of **constant frequency**. An increase in which sound wave characteristic would result in an **increase in loudness**?

- A speed
- B period
- C wavelength
- D amplitude



10 The diagram below shows two points, A and B, on a wave train.
How many wavelengths separate point A and point B?

- A 1.0
- B 1.5
- C 3.0
- D 0.75





ANSWER KEY

The driver of a car blows the horn as the car approaches a crosswalk. Compared to the **actual pitch** of the horn, the **pitch** observed by a pedestrian in the crosswalk is

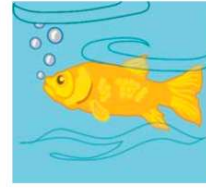
- A lower
- B higher
- C the same



(b)

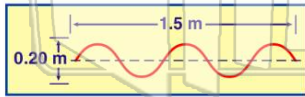
What **type of wave** is **sound** traveling in water?

- A torsional
- B transverse
- C elliptical
- D longitudinal



(d)

What are the **amplitude** and **wavelength** of the wave shown below?



- A amplitude = 0.10 m, wavelength = 0.30 m
- B amplitude = 0.10 m, wavelength = 0.60 m
- C amplitude = 0.20 m, wavelength = 0.30 m

(b)

An opera singer's voice is able to break a thin crystal glass when the **singer's voice** and the **vibrating glass** have the **same**

- A frequency
- B speed
- C amplitude
- D wavelength



(a)



PREVIEW

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- A higher frequency and shorter wavelength
- B higher frequency and longer wavelength
- C lower frequency and shorter wavelength
- D lower frequency and longer wavelength

- C 16 Hz
- D 80 Hz



An electric guitar is generating a sound of **constant frequency**. An increase in which sound wave characteristic would result in an **increase in loudness**?

- A speed
- B period
- C wavelength
- D amplitude

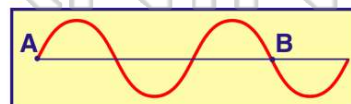


(d)

The diagram below shows two points, A and B, on a wave train.

How many wavelengths **separate** point A and point B?

- A 1.0
- B 1.5
- C 3.0
- D 0.75



(b)