The energy of waves

Sci H

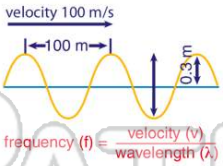
Name _____ Class _____ Date _____

1 The **medium** through which a **tsunami** travels is _____.

A air
B light
C rock
D water

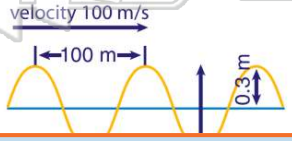
2 The diagram below represents a wave after a tsunami. Answer the question based on the information in the diagram. What is the **frequency**, in hertz (Hz), of this wave?

A 1 Hz
B 2 Hz
C 100 Hz
D 200 Hz



3 The **crest** of the wave is _____ above the resting position of the wave.

A 100 m
B 1 m
C 0.3 m
D 100.3 m



4 The **type of wave** that causes a tidal wave is a _____.

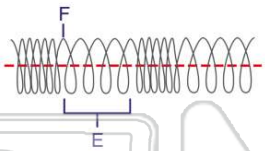
A fast wave
B magnetic wave
C seismic wave
D sound wave

5 T
p
e

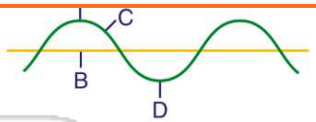
A
B
C
D

7 I
p
I
c

A compression
B crest
C rarefaction
D trough

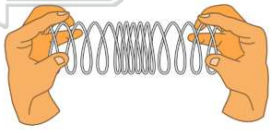


A A
B B
C C
D D



9 The diagram below shows a slinky being held and **stretched** by two students. What **type of wave** is shown by the slinky?

A compression
B longitudinal
C transverse
D seismic



10 The velocity of a wave is measured in meters per second. What is the **velocity** of a wave that has a frequency of **10** Hz and a wavelength (λ) of **20** m?

A 10 m/s
B 20 m/s
C 30 m/s
D 200 m/s

$$v = f\lambda$$

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ANSWER KEY

The **medium** through which a **tsunami** travels is _____.

A air
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The diagram below represents a wave after a tsunami. Answer the question based on the information in the diagram. What is the **frequency**, in hertz (Hz), of this wave?

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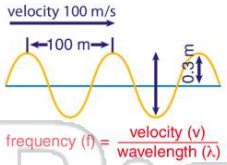

a

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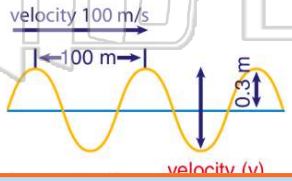

c

The **type of wave** that causes a tidal wave is a _____.

A fast wave
B magnetic wave
C seismic wave
D sound wave

c

PREVIEW

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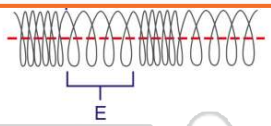
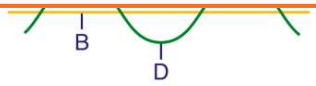
B crest
C rarefaction
D trough



C C
D D



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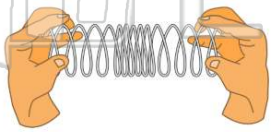

b

The velocity of a wave is measured in meters per second. What is the **velocity** of a wave that has a frequency of **10** Hz and a wavelength (λ) of **20** m?

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D 200 m/s

$v = f\lambda$

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