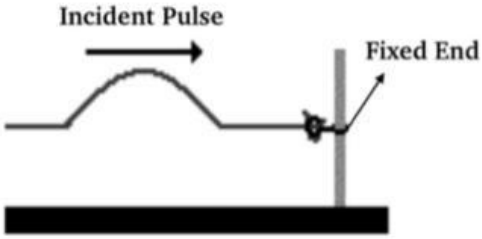
Subtopic 6.3: Wave Behavior

1. A wave pulse reaches an end that is fixed as shown below. The wave is ____in the opposite direction.



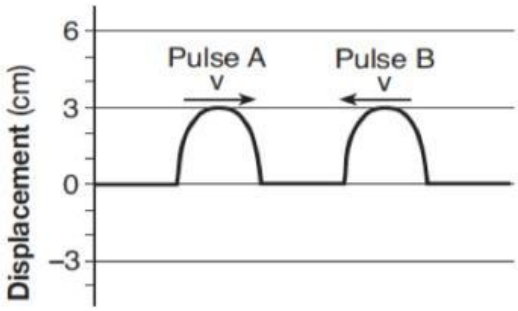
A. inverted and maintains the same shape

B. not inverted and maintains the same shape

C. inverted and gets bigger in shape

D. not inverted and gets bigger in shape

2. The diagram below represents two identical pulses approaching each other in a uniform medium.



As the wave pulses meet and are superposed, the maximum displacement of the medium is ____.

A. $-6\ cm$

B. $0\ cm$

C. $3\ cm$

D. $6\ cm$

3. Two pulses approach each other in the same medium. The diagram below represents the displacements caused by each pulse.

Which diagram best represents the resultant displacement of the medium as the pulses pass through each other?

A.

B.

C.

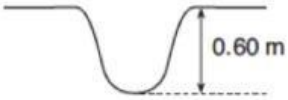
D.

4. As represented in the diagram below, two wave pulses, *X* and *Y*, are traveling toward each other in a rope. Both wave pulses have an amplitude of 0.30m. Which diagram shows the pulse produced due to the superposition of pulse *X* and pulse *Y*?

A.

B.

C.

D. 

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