

Principle of Superposition of Waves

- Whenever two or more waves pass through each other, the resultant displacement at each point is the sum of all the individual displacements occurring at that point.

Answers

Constructive Interference - occurs when both waves push the medium in the same direction. (ie. crest + crest or trough + trough)

- the resultant waves are called super crests or super troughs.

Destructive Interference - occurs when the waves push the medium in opposite directions (ie. crest + trough) the result is either a smaller crest or smaller trough.

- special case of destructive interference is the formation of nodal points
- nodal points are formed when crests and troughs of equal magnitude meet.

Finding the Resultant Wave of Complex wave interaction.

Apply the Principle of Superposition at waves to key points on the waves (corners and changes of directions)

