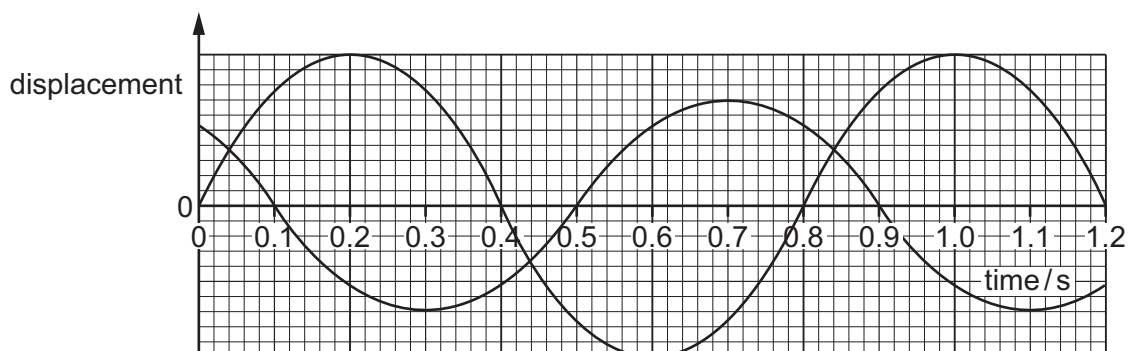


- 20 Which statement describes what is meant by the plastic deformation of a material?
- A It always obeys Hooke's law.
 - B It does not return to its original length when the extending force is removed.
 - C It never obeys Hooke's law.
 - D It returns to its original length when the extending force is removed.
- 21 A transverse wave is moving along a rope. Two points X and Y on the rope are a quarter of a wavelength apart from each other.
- Which statement is **not** possible for the two points X and Y at any instant?
- A They are both stationary.
 - B They are displaced in opposite directions from their equilibrium position.
 - C They are moving in opposite directions.
 - D They both have displacements of the same magnitude from their equilibrium positions.
- 22 Two progressive waves meet at a fixed point P. The variation with time of the displacement of each wave at point P is shown in the graph.



What is the phase difference between the two waves at point P?

- A 45°
- B 90°
- C 135°
- D 180°