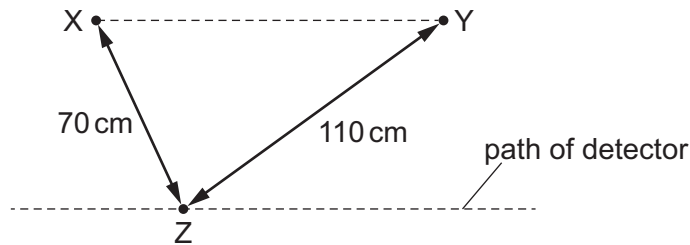


- 28** Electromagnetic waves of equal wavelengths are emitted from two sources, X and Y. The waves are emitted from X and Y with a phase difference of  $180^\circ$ .

A detector moves along a path that is parallel to the line XY and detects a pattern of intensity maxima and minima.

The diagram shows the arrangement of the sources and the path of the detector.



An intensity maximum is detected at point Z. Length XZ is 70 cm and length YZ is 110 cm.

What is a possible wavelength of the waves?

- A** 10 cm                      **B** 16 cm                      **C** 20 cm                      **D** 40 cm