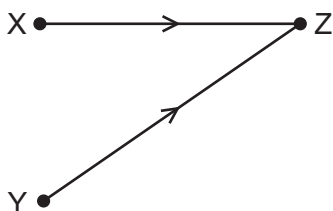


29 Which wave **cannot** be a longitudinal wave?

- A a diffracted wave
- B a polarised wave
- C a reflected wave
- D a stationary wave

30 Microwaves are emitted from two sources at points X and Y. The two waves meet at point Z. The diagram shows the paths of the two waves.



The waves emitted from points X and Y are coherent.

What is a direct consequence of the two waves being coherent?

- A There is a constant difference in the path lengths YZ and XZ.
- B There is a constant difference in phase between the two waves at Z.
- C There is a constant non-zero difference in frequency of the two waves at Z.
- D There is a constant non-zero difference in amplitude of the two waves at Z.

31 What is the unit of resistivity?

- A $\Omega \text{ m}^{-2}$
- B $\Omega \text{ m}^{-1}$
- C Ω
- D $\Omega \text{ m}$

32 A kettle is connected to a 250 V mains supply.

What are possible values for the power of the kettle and the current in the kettle?

	power / W	current / A
A	500	0.5
B	500	5.0
C	2500	0.1
D	2500	10