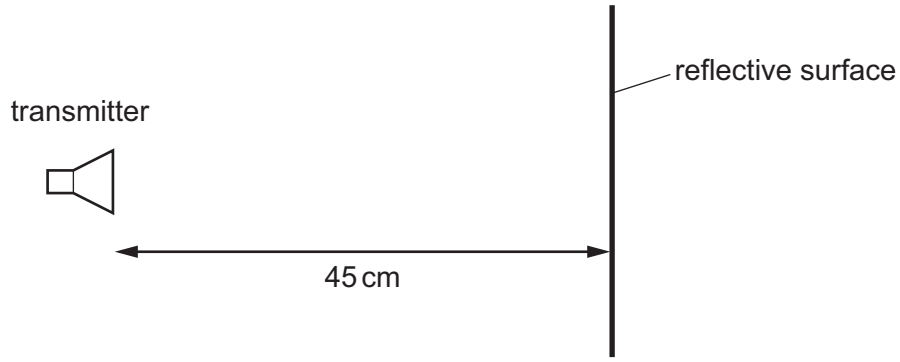
24 Two electromagnetic waves have wavelengths of 5.0×10^{-7} m and 5.0×10^{-2} m.

Which row identifies the regions of the electromagnetic spectrum to which the waves belong?

	wavelength 5.0×10^{-7} m	wavelength 5.0×10^{-2} m
A	ultraviolet	infrared
B	visible	microwave
C	ultraviolet	microwave
D	visible	infrared

25 A transmitter of electromagnetic waves is placed 45 cm from a reflective surface.



The emitted waves have a frequency of 1.00 GHz. A stationary wave is produced with a node at the transmitter and a node at the surface.

How many antinodes are in the space between the transmitter and the surface?

A 1 **B** 2 **C** 3 **D** 4

26 Which statement about a light wave and a sound wave is correct?

A Both can travel through free space.

B Both have a frequency inversely proportional to their wavelength.

C Both have an intensity proportional to their amplitude.

D Both have oscillations perpendicular to the direction of energy transfer.