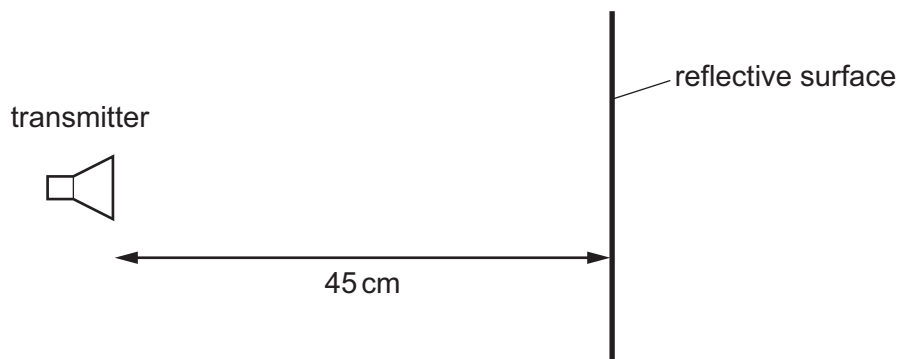


- 24** Two electromagnetic waves have wavelengths of $5.0 \times 10^{-7} \text{ m}$ and $5.0 \times 10^{-2} \text{ m}$.

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

	wavelength $5.0 \times 10^{-7} \text{ m}$	wavelength $5.0 \times 10^{-2} \text{ m}$
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.