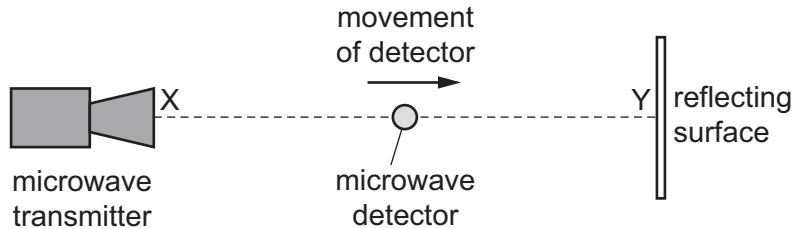


**29** A microwave transmitter is placed at a fixed distance from a flat reflecting surface, as shown.



A microwave detector is moved steadily in a straight line from X to Y. A series of maxima and minima of intensity is obtained. The distance between adjacent maxima is 1.5 cm.

What is the frequency of the microwave radiation?

- A**  $1.0 \times 10^8 \text{ Hz}$
- B**  $2.0 \times 10^8 \text{ Hz}$
- C**  $1.0 \times 10^{10} \text{ Hz}$
- D**  $2.0 \times 10^{10} \text{ Hz}$

**20** Two parallel circular metal plates X and Y, each of diameter 18 cm, have a separation of 0.0 cm