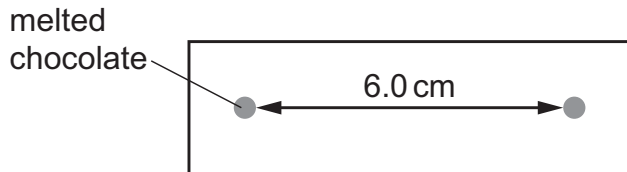


- 24** A teacher removes the turntable from a microwave oven and places a bar of chocolate in the oven. She then switches the oven on for a short time.

A stationary wave is formed in the oven.

When the chocolate is removed, the teacher observes that there are two small sections of melted chocolate 6.0 cm apart with unmelted chocolate in between.

Each section of melted chocolate is located at an antinode.



Assume that the speed of the microwaves is $3.0 \times 10^8 \text{ m s}^{-1}$.

What is the frequency of the microwaves emitted by the oven?

- A** 25 MHz **B** 50 MHz **C** 2.5 GHz **D** 5.0 GHz