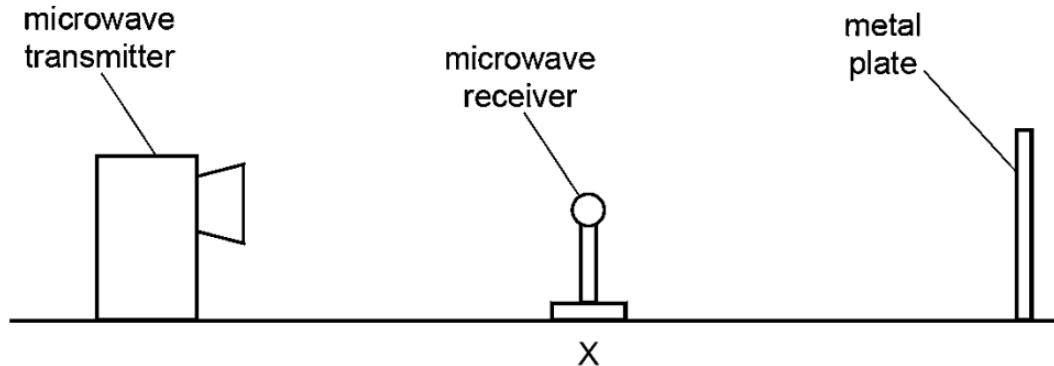


18 A transmitter produces microwaves that travel in air towards a metal plate as shown.



The microwaves have a wavelength of 12.0 cm.

A microwave receiver is initially placed at position X where it detects an intensity maximum. The receiver is then slowly moved away from X directly towards the plate.

What is the number of intensity minima that are detected by the receiver as it moves from X to a position that is 33.5 cm away from X?

**A** 2

**B** 3

**C** 5

**D** 6

19 Two oppositely charged parallel plates are arranged as shown.