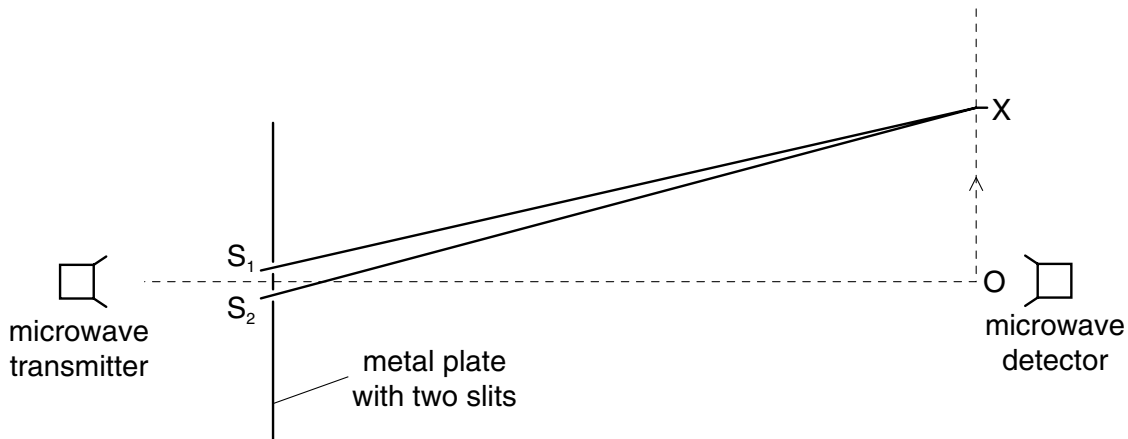


- 28** The diagram shows an experiment which has been set up to demonstrate two-source interference, using microwaves of wavelength λ .



The detector is moved from O in the direction of the arrow. The signal detected decreases until the detector reaches the point X , and then starts to increase again as the detector moves beyond X .

Which equation correctly determines the position of X ?

- A** $OX = \lambda/2$ **B** $OX = \lambda$ **C** $S_2X - S_1X = \lambda/2$ **D** $S_2X - S_1X = \lambda$

- 29** Two progressive waves of frequency 200 Hz are superimposed to produce a stationary wave in