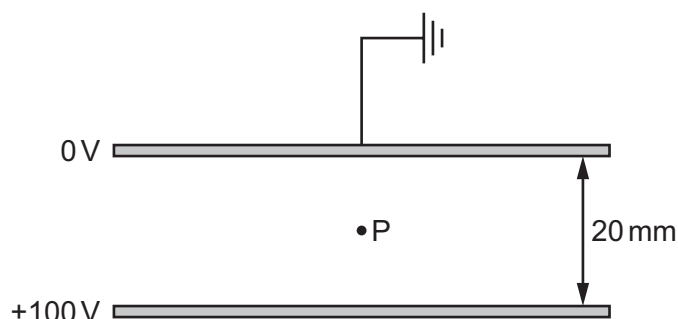


- 28** Water waves of wavelength λ are diffracted as they pass through a gap of width d in a barrier.

Which combination of wavelength and gap width would produce the greatest angle of diffraction?

	gap width	wavelength
A	$\frac{1}{2}d$	2λ
B	$\frac{1}{2}d$	$\frac{1}{2}\lambda$
C	$2d$	2λ
D	$2d$	$\frac{1}{2}\lambda$

- 29** Two horizontal parallel plate conductors are separated by a distance of 20 mm in air. The upper plate is earthed and the potential of the lower plate is +100 V.



What is the electric field strength at point P midway between the plates?

- A** 5000 V m^{-1} downwards
- B** 5000 V m^{-1} upwards
- C** $10\,000 \text{ V m}^{-1}$ downwards
- D** $10\,000 \text{ V m}^{-1}$ upwards