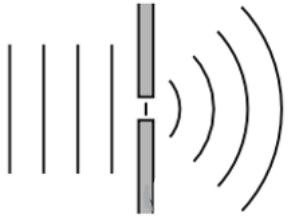
17 The diagram shows a water wave in a shallow tank. The wave is diffracted though a gap in a barrier and spreads. The wavelength of the wave is much smaller than the width of the gap.



The wavelength of the wave and the width of the gap are both changed by a small amount.

Which combination of changes **must** increase the amount of spreading due to diffraction?

	wavelength	width of gap
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

18 Light of wavelength 567 nm is incident normally on a diffraction grating.