27 A sound wave of wavelength 0.50 m passes through a doorway of width 1.0 m between two rooms.

Which change increases the amount of diffraction that takes place?

- **A** Double the amplitude of the sound wave.
- **B** Double the width of the doorway.
- **C** Halve the frequency of the sound wave.
- **D** Halve the period of the sound wave.