

- 17** The intensity of a wave depends on the amplitude. The intensity is also proportional to the square of the frequency.

A wave has frequency 5.0 Hz, amplitude 2.4 cm and intensity I .

What is the intensity of a similar wave of frequency 15.0 Hz and amplitude 1.2 cm?

A $\frac{4}{9}I$

B $\frac{2}{3}I$

C $\frac{9}{4}I$

D $36I$