15 The defining equation for a particle moving in simple harmonic motion is
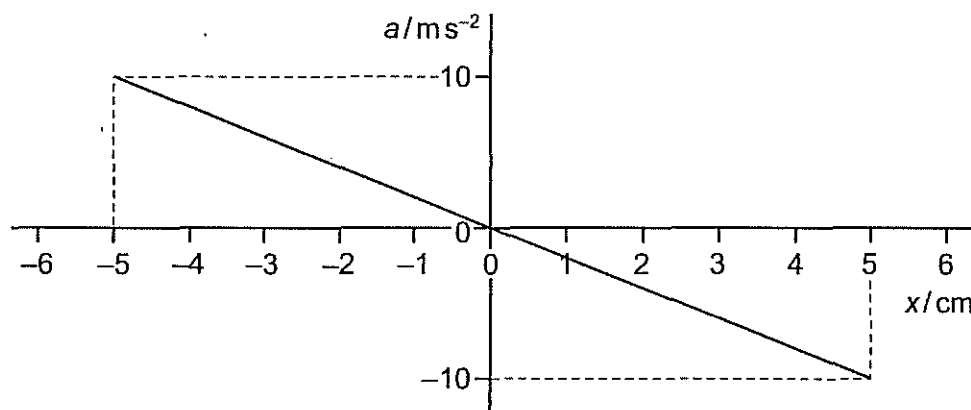
$$a = -\omega^2 x$$

where a is the acceleration of the particle, x is the displacement and ω is the angular frequency.

The graph shows how a varies with x for a particle moving in simple harmonic motion.

What is the amplitude and period of the motion?

	amplitude/cm	period/s
A	5.0	0.44
B	5.0	14
C	10	0.44
D	10	14