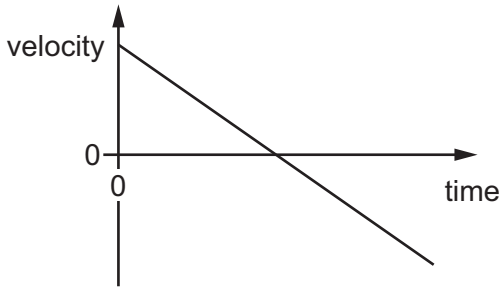
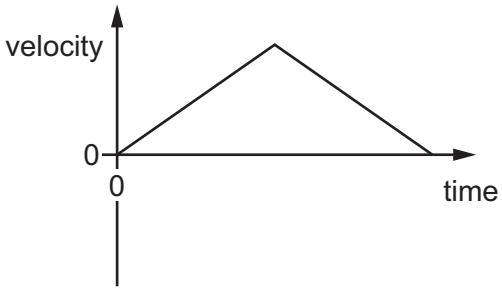
6 A ball rolls in a straight line up a ramp and then back down the ramp along its original path.

Which graph shows the variation with time of the ball's velocity?

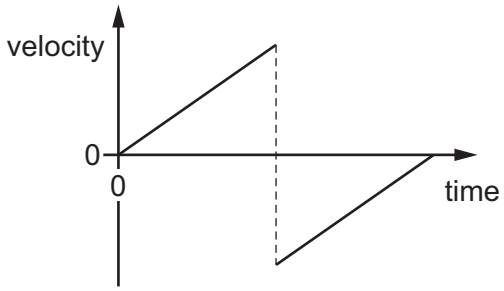
A



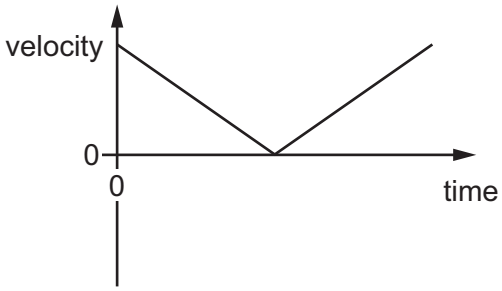
B



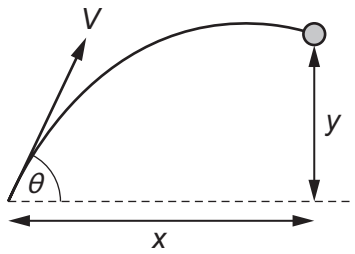
C



D



7 A ball is thrown with velocity V at an angle θ to the horizontal.



The acceleration of free fall is g. Assume that air resistance is negligible.

What are the horizontal displacement x and the vertical displacement y after time t?

	x	y
A	$Vt\cos\theta$	$Vt\sin\theta + \frac{1}{2}gt^2$
B	$Vt\cos\theta$	$Vt\sin\theta - \frac{1}{2}gt^2$
C	$Vt\sin\theta$	$Vt\cos\theta + \frac{1}{2}gt^2$
D	$Vt\sin\theta$	$Vt\cos\theta - \frac{1}{2}gt^2$