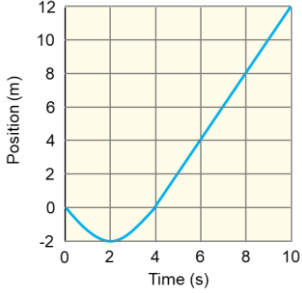
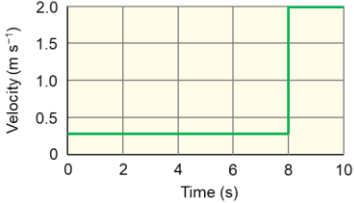
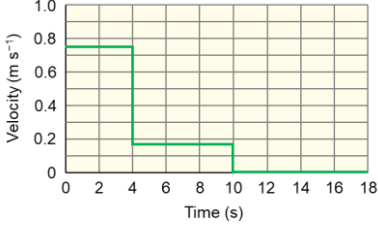


30	(a)	$a = \frac{\Delta v}{\Delta t}$ $a = \frac{2 - 0}{4 - 2}$ $a = 1 \text{ m s}^{-2}$	1 1	
	(b)		2	
31	(a)	<p>The dog changes direction at <math>t = 3 \text{ s}</math>.</p> <p>The velocity becomes negative at <math>t = 3 \text{ s}</math>.</p>	1 1	
	(b)	$s = \frac{1}{2} \Delta v \Delta t$ $s = \frac{1}{2} 120 \times 3$ $s = 180 \text{ mm from the origin}$	1 1	
32	(a)	8 s	1	
	(b)		2	
33	(a)	<p>Slowing down</p> <p>The slope of the lines are becoming more shallow with time.</p>	1 1	
	(b)		3	
34	(a)	As the ball moves in the opposite direction to its initial direction/displacement is negative relative to the initial position.	1	
	(b)	Both lines represent a ball falling with the same acceleration.	1	
35	(a)	<p>The velocity curve is changing with time.</p> <p>This indicates that the lion's velocity is constantly changing.</p>	1 1	
	(b)	(1)	$a = \frac{\Delta v}{\Delta t}$ $a = \frac{15 - 5}{4 - 0}$ $a = 2.5 \text{ m s}^{-2}$	1 1
		(2)	$a = \frac{\Delta v}{\Delta t}$ $a = \frac{14 - 11}{6 - 2}$ $a = 0.75 \text{ m s}^{-2}$	1 1