36	(a)		$6\ \text{m s}^{-1}$	1
	(b)	(1)	$a = \frac{\Delta v}{\Delta t}$ $a = \frac{0-10}{2.5-0}$ $a = -4\ \text{m s}^{-2}$	1 1
		(2)	$a = \frac{\Delta v}{\Delta t}$ $a = \frac{0-15}{3.5-0}$ $a = -4.3\ \text{m s}^{-2}$	1 1
	(c)		Truck Greater area under the velocity curve.	1 1
	(d)		$s = \frac{1}{2}\Delta v \Delta t$ $s = \frac{1}{2}10\ \text{x}\ 2.5$ $s = 12.5\ \text{m from the origin}$ Car's final position is $+15 - 12.5 = +2.5\ \text{m}$	1 1
			$s = \frac{1}{2}\Delta v \Delta t$ $s = \frac{1}{2}15\ \text{x}\ 3.5$ $s = 26.25\ \text{m from the origin}$ The truck's final position is $-35 + 26.25 = -8.75\ \text{m}$	1 1
			Separation is $+2.5 - (-8.75) = 11.25\ \text{m}$	1
37	(a)		The cheetah accelerates uniformly between t = 0 and t = 2 s. The cheetah then moves with a constant acceleration between t = 2 s and t = 5 s. The cheetah then moves with acceleration that decreases uniformly between t = 5 s and t = 8 s. The cheetah then moves with a constant velocity between t = 8 s and t = 10 s.	1 1 1 1
	(b)		$4\ \text{m s}^{-2}$	1
	(c)	(1)	$\Delta v = \frac{1}{2}a\Delta t$ $\Delta v = \frac{1}{2}(8-0)\ \text{x}\ (2-0)$ $\Delta v = 8\ \text{m s}^{-1}$ $v = \Delta v + v_0$ $v = 8 + 0.5$ $v = 8.5\ \text{m s}^{-1}$	1 1 1
		(2)	$\Delta v = a\Delta t$ $\Delta v = 8\ \text{x}\ (5-2)$ $\Delta v = 24\ \text{m s}^{-1}$ $v = 24 + 8.5$ $v = 32.5\ \text{m s}^{-1}$	 1 1 1
		(3)	$\Delta v = \frac{1}{2}a\Delta t$ $\Delta v = \frac{1}{2}(8)\ \text{x}\ (8-5)$ $\Delta v = 12\ \text{m s}^{-1}$ $v = 12 + 32.5$	 1 1

			v	= 44.5 m s^{-1}	1