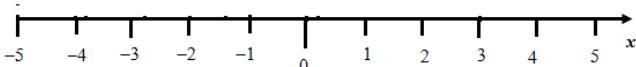


Question	Scheme	Mark	Notes
20 (a)	$1 - \frac{4}{t^2}$ (one term correct) $"1 - \frac{4}{t^2}" = 0$ (equating their $f(t)$ to 0) $t = +2$ (cao) $\left("2" + \frac{4}{"2"}\right) - \left(8 + \frac{4}{8}\right)$ (oe) 4.5 (metres)	3 2	M1 M1 (DEP) A1 M1 A1
21 (a)	$x + y = 550$	1	B1
(b)	$22x + 12(y - 50) + (12 - 5) \times 50 = 8600$ (oe)	1	B1
(c)	$"22x + 12"(550 - x - 50) + (12 - 5) \times 50 = 8600$ (oe but complete method to solve SEs for x and y with no errors) NB: c's SEs in (a) and (b) must be linear SEs in x and y with (a) having unit coeffs. $x = 225$ $y = 325$	3	M1 A1 A1
22 (a)	$-12 < 4x$ OR $3x \leq 6$ (oe) $-3 < x$ $x \leq 2$ NB: $-3 < x \leq 2$ scores A2	3	M1 A1 A1
(b)	 Open circle at "x = -3" and closed circle at "x = 2" One single line joining the two circles	2	B1 ft B1 ft