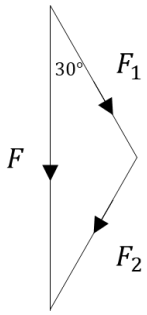
52	(a)	$F_1 = \frac{1}{4\pi\varepsilon_0}\frac{q_1 q_3}{r^2}$	
		$F_1 = 9 \text{ x } 10^9 \text{ x } \frac{(12 \text{ x } 10^{-6})(12 \text{ x } 10^{-6})}{(0.15)^2}$	1
		$F_1 = 57.6 \text{ N}$	1
	(b)	$F_2 = 57.6 \text{ N}$	1
	(c)		
		Vector diagram is labelled	1
		Length and direction of vectors reflects the magnitudes and directions of F_1 and F_2	1
		$\frac{1}{2}F = F_1 \text{ x } \cos\theta$	
		$F = F_1 \text{ x } \cos\theta \text{ x } \frac{2}{1}$	
		$F = 57.6 \text{ x } \cos 30 \text{ x } 2$	1
		$F = 99.8$ N, vertically downwards from q_3	1