141	(a)	$\Delta V = \frac{W}{q}$	
		$\Delta V = \frac{2.4 \text{ x } 10^{-15}}{1.6 \text{ x } 10^{-19}}$	1
		$\Delta V = 1.5 \text{ x } 10^{4}\ V$	1
	(b)	$\Delta v = \sqrt{\frac{2W}{m}}$	
		$\Delta v = \sqrt{\frac{2 \text{ x } 2.4 \text{ x } 10^{-15}}{9.11 \text{ x } 10^{-31}}}$	1
		$\Delta v = 7.3 \text{ x } 10^{7} \text{ m s}^{-1}$	1
142	(a)	$\Delta V = \frac{W}{q}$	
		$\Delta V = \frac{40 \text{ x } 10^{-12}}{1.6 \text{ x } 10^{-19}}$	1
		$\Delta V = 2.5 \text{ x } 10^{8}\ V$	1
	(b)	$W = q\Delta V$	
		$W = 1.6 \text{ x } 10^{-19} \text{ x } (2.5 \text{ x } 10^{8} - (2.5 \text{ x } 10^{8} \text{ x } 0.25))$	1
		$W = 3 \text{ x } 10^{-11} \text{ J}$	1
143	(a)	$E = \frac{\Delta V}{d}$	
		$\Delta V = Ed$	
		$\Delta V = 3 \text{ x } 10^{6} \text{ x } 4 \text{ x } 10^{3}$	1
		$\Delta V = 1.2 \text{ x } 10^{10}\ V$	1
	(b)	$F = Eq$	
		$F = 3 \text{ x } 10^{6} \text{ x } 1.6 \text{ x } 10^{-19}$	1
		$F = 4.8 \text{ x } 10^{-13} \text{ N}$	1
144	(a)	$E = \frac{\Delta V}{d}$	
		$d = \frac{\Delta V}{E}$	
		$d = \frac{70 \text{ x } 10^{-3}}{10 \text{ x } 10^{6}}$	1
		$d = 7 \text{ x } 10^{-9} \text{ m}$	1
		$d = \frac{7 \text{ x } 10^{-9}}{1 \text{ x } 10^{-9}}$	
		$d = 7\ n\text{m}$	1
	(b)	$E = \frac{\Delta V}{d}$	
		$E = \frac{30 \text{ x } 10^{-3}}{7 \text{ x } 10^{-9}}$	1
		$E = 4.3 \text{ x } 10^{6}\ V \text{ m}^{-1}$	1