15	(a)	$\sqrt{2} = 2^{\frac{1}{2}}$ or $8^3 = 2^9$ or $16^{\frac{3}{2}} = 2^6$		3	M1 for one of $\sqrt{2} = 2^{\frac{1}{2}}$ or $8^3 = 2^9$ or $16^{\frac{3}{2}} = 2^6$
					M1 for all of $\sqrt{2} = 2^{\frac{1}{2}}$ and $8^3 = 2^9$ and $16^{\frac{3}{2}} = 2^6$ **OR** $2^{\frac{1}{2}} \div 2^3$
		Working required	-2.5		A1 oe, dep on M1
	(b)	$0.04 \times 4.5 \times 10^{157}$ oe		3	M1
		$4 \times 10^{-2} \times 4.5 \times 10^{157}$ $(= 18 \times 10^{155})$ **or** 0.18×10^{157} oe			M1
		Correct answer scores full marks (unless from obvious incorrect working)	1.8×10^{156}		A1 SCB1 for $18 \times 10^{156} = 1.8 \times 10^{157}$ **or** $18 \times 10^{157} = 1.8 \times 10^{158}$
					Total 6 marks

16	(a)		6	1	B1
	(b)		36	1	B1
	(c)		15	1	B1
					Total 3 marks