

## TAKE 5 ... STANDARD FORM - CALCULATION

### Q1.

Question	Working	Answer	Mark	Notes
(a)		1	1	B1 cao
(b)		0.000067	1	B1 cao
(c)		$2.7 \times 10^{14}$	2	M1 for $27 \times 10^{7+6}$ or $27 \times 10^{13}$ oe or an answer of $2.7 \times 10^n$ where $n$ is an integer or an answer of $a \times 10^{14}$ where $1 \leq a < 10$ A1 cao

### Q2.

	$5 \times 10^2$	2	M1 for $3 \div 6 \times 10^{7-4}$ or $0.5 \times 10^3$ or 500 or 30 000 000 +60 000 A1 cao
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### Q3.

Question	Working	Answer	Mark	Notes
		$7 \times 10^8$	2	M1 for $7 \times 10^n$ , $n \neq 8$ or $a \times 10^8$ , $a \neq 7$ or 700 000 000 or $0.7 \times 10^9$ A1 cao

### Q4.

Question	Working	Answer	Mark	Notes
		$1.8 \times 10^{-3}$	M2	for $\frac{6 \times 10^{-2} \times 3 \times 10^{-4}}{1 \times 10^{-2}}$ or $18 \times 10^{-4}$ or 0.0018 as the answer
			(M1)	for $6 \times 0.0003$ or $0.06 \times 0.03$ or $1.8 \times 10^n$ ( $n \neq -3$ ) or $0.000018 \div 0.01$ or rewriting one number in standard form)
			A1	cao

### Q5.

$500 \div 250\,000$ [= 0.002] OR $(5 \times 10^2) \div (2.5 \times 10^5)$ [= $(5 \div 2.5) \times 10^{2-5}$ ] OR $\frac{500}{250} \times \frac{1}{10^3}$ [= $2 \times 10^{-3}$ ] OR $\frac{500 \div 100}{250000 \div 100} = \frac{5}{2500}$ [= 0.002]	$2 \times 10^{-3}$	2	M1 for an attempt to divide using two numbers that are in consistent form eg following an attempt to convert to ordinary numbers, or standard form numbers.  A1 for $2 \times 10^{-3}$
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