1 **(a)** Write 14 835 correct to the nearest thousand.

..... [1]

(b) Write your answer to **part (a)** in standard form.

..... [1]

MARK SCHEME:

(a)	15000 cao	**1**	
(b)	1.5×10^4	**1FT**	**FT** *their* **(a)**

2 Write in standard form.

(a) 2 470 000

..... [1]

(b) 0.0079

..... [1]

MARK SCHEME:

(a)	2.47×10^6	**1**	
(b)	7.9×10^{-3}	**1**	

3 Calculate $(3 \times 10^{-3})^3$.
Give your answer in standard form.

..... [1]

MARK SCHEME:

2.7×10^{-8}	**1**	

4 **(a)** Write 0.006 54 in standard form.

..... [1]

(b) The number 1.467×10^{102} is written as an ordinary number.

Write down the number of zeros that follow the digit 7.

..... [1]

MARK SCHEME:

(a)	6.54×10^{-3}	**1**	
(b)	99	**1**	

5 Simplify $2.1\times10^{p}+2.1\times10^{p-1}$.
Give your answer in standard form.

..... [2]

MARK SCHEME:

	2.31×10^{p}	**2**	**B1** for $21\times10^{p-1}$ or 0.21×10^{p} or answer with figs 231

$z =$ ..... [2]

6 Work out $2\times10^{100}-2\times10^{98}$, giving your answer in standard form.

..... [2]

MARK SCHEME:

	1.98×10^{100}	**2**	**B1** for 200×10^{98} or 0.02×10^{100} or answer with figs 198

7 Work out $(3 \times 10^{199}) + (2 \times 10^{201})$.
Give your answer in standard form.

..... [2]

MARK SCHEME:

	2.03×10^{201}	**2**	**B1** for figs 203 or [0].03×10^{201} or 200×10^{199}

8 Calculate $0.04^2 + 0.03 \times 0.28$.
Give your answer in standard form.

..... [2]

MARK SCHEME:

	$1[.0] \times 10^{-2}$ cao	**2**	**B1** for 0.01 oe

9 Work out $\dfrac{240^2}{5\times10^6}$.

Give your answer in standard form.

Answer ..... [2]

MARK SCHEME:

	$1.15(2) \times 10^{-2}$	2	**M1** figs 115(2)