9. (a) Write **each** of the following numbers in standard form.

(i) 8 370 000 000

(ii) 0·00059

[2]

(b) Find, in standard form, the value of

$$(4·7 \times 10^{-5}) \div (8·3 \times 10^{-8}).$$

(104-10)

[2]

13. (a) Write **each** of the following numbers in standard form.

(i) 23 million

(ii) 0·00098

[2]

(b) Find, in standard form, the value of $(5·4 \times 10^3) \times (3 \times 10^5)$.

[2]

7. (a) Write the number twenty million in standard form.

[1]

(b) Calculate, giving your answers in standard form correct to 2 significant figures.

(i) $(4·6 \times 10^{-7}) \times (7·2 \times 10^{14})$

[2]

(ii) $\dfrac{4·56 \times 10^3}{9·24 \times 10^{14}}$

[2]

16. *(a)* Write **each** of the following numbers in standard form.

(i) 3500

....

(ii) 0·3

....

[2]

(b) Arrange the following in ascending order.

$$3 \times 10^4 \qquad 3 \times 10^{-4} \qquad 10^2 \times 10^5 \qquad 10^0$$

....

....

....

Smallest   ....   Largest

[2]

9. *(a)* Write **each** of the following numbers in standard form.

(i) 0·0047

....

(ii) 32 000

....

[2]

(b) Find, in standard form, the value of

$$(2·1 \times 10^{-5}) \times (3 \times 10^8).$$

....

....

[2]

(iv) $3·4 \times 10^3 + 1·2 \times 10^2$

....

....

....

....

[2]

9. (a)   Write each of the following numbers in standard form.

(i)   5800

....

(ii)   0·004

....

[2]

(b)   Find, in standard form, the value of $\dfrac{5\cdot6\times10^6}{2\times10^{-3}}$.

....

....

....

....

....

....

[2]

(c)   Find the value of $(8\times10^3)-(2\times10^3)$.

....

....

[1]

NUMERACY STYLE QUESTION

(b)   Water flows into the pond at a rate of 50 litres per minute.
Complete the following statement by inserting a value written in standard form, correct to 3 significant figures.

[4]

'Water flows into the pond at a rate of .... m^3 per second.'

....

....

....

....

....

....

....

1.

In the UK, some soft drinks are sold in cans.
75% of all these cans are made of aluminium.
In 2008, 5 billion aluminium cans were sold.

Given that 1 billion is 1000 million, calculate how many of the cans that were sold in 2008 were
not made of aluminium.
Give your answer in standard form correct to two significant figures.

....

....

....

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....

....

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....

[5]