ANSWERS

Standard Form – Past Paper Questions

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

(i) 0·0047

4.7×10^{-3} (1)

(ii) 32 000

3.2×10^{4} (1)

[2]

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

$$(2.1 \times 10^{-5}) \times (3 \times 10^{8}).$$

$3 \times 2.1 = 6.3$

6.3×10^{3}

(1) (1)

[2]

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

(i) 3500

3.5×10^{3} (1)

(ii) 0·3

3×10^{-1} (1)

[2]

(b) Arrange the following in ascending order.

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

Smallest 3×10^{-4} $\quad$ 10^{0} $\quad$ 3×10^{4} $\quad$ $10^{2} \times 10^{5}$ Largest

[2]

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

(i) 5800

$5{\cdot}8 \times 10^3$ (1)

(ii) 0·004

4×10^{-3} (1)

[2]

(b) Find, in standard form, the value of $\frac{5{\cdot}6 \times 10^6}{2 \times 10^{-3}}$.

$5{\cdot}6 \div 2 = 2{\cdot}8$

$2{\cdot}8 \times 10^9$

(1) (1)

[2]

(c) Find the value of $(8 \times 10^3) - (2 \times 10^3)$.

$= 6 \times 10^3$ (1)

[1]

11. *(a)* Write the following numbers in standard form.

(i) 0·034

$3{\cdot}4 \times 10^{-2}$ (1)

(ii) six million

6×10^6 (1)

[2]

(b) Calculate, giving your answers in standard form.

(i) $(4{\cdot}5 \times 10^{17}) \times (7{\cdot}8 \times 10^{-11})$

calculator...

$3{\cdot}51 \times 10^7$ (2)

(ii) $\frac{1{\cdot}45 \times 10^{11}}{8{\cdot}43 \times 10^{-4}}$

$1{\cdot}72 \times 10^{14}$ (2)

[4]