Standard Form

5 Calculate the value of $5(6 \times 10^3 + 400)$, giving your answer in standard form.

Answer .... [2]

6   Change 64 square metres into square millimetres.
Give your answer in standard form.

Answer .... mm^2 [2]

3) June 2010 V3

9   1 second = 10^6 microseconds.

Change 3×10^{13} microseconds into minutes. Give your answer in standard form.

Answer .... min   [2]

6 Work out $\dfrac{240^2}{5 \times 10^6}$.

Give your answer in standard form.

Answer .... [2]

6 Write 0.00658

(a) in standard form,

Answer(a) .... [1]

(b) correct to 2 significant figures.

Answer(b) .... [1]

5   A hummingbird beats its wings 24 times per second.

   (a)   Calculate the number of times the hummingbird beats its wings in one hour.

                                                Answer(a) .... [1]

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

                                                Answer(b) .... [1]

7   Solve the equation $4x + 6 \times 10^3 = 8 \times 10^4$.

   Give your answer in standard form.

                                                Answer x = ... [3]

6 **(a)** Write 16 460000 in standard form.

Answer(a) .... [1]

(b) Calculate $7.85 \div (2.366 \times 10^2)$, giving your answer in standard form.

Answer(b) .... [2]

2 Work out $2(3 \times 10^8 - 4 \times 10^6)$, giving your answer in standard form.

Answer .... [2]

5   The population of a city is 128 000, correct to the nearest thousand.

   (a)   Write 128 000 in standard form.

<div align="right">*Answer(a)* .... [1]</div>

   (b)   Write down the upper bound of the population.

<div align="right">*Answer(b)* .... [1]</div>

4   Calculate $(4.3 \times 10^8) + (2.5 \times 10^7)$.

   Give your answer in standard form.

<div align="right">*Answer* .... [2]</div>

9 Calculate, giving your answers in standard form,

(a) $2 \times (5.5 \times 10^4)$,

Answer(a) .... [2]

(b) $(5.5 \times 10^4) - (5 \times 10^4)$.

Answer(b) .... [2]

13) November 2013 V3

12 Write the answer to the following calculations in standard form.

(a) $600 \div 8000$

Answer(a) .... [2]

(b) $10^8 - 7 \times 10^6$

Answer(b) .... [2]

12 $p = 4 \times 10^5$ $q = 5 \times 10^4$

Find, giving your answer in standard form,

(a) pq,

Answer(a) .... [2]

(b) $\dfrac{q}{p}$.

Answer(b) .... [2]

15) June 2014 V3

5 **(a)** Use your calculator to find the value of $7.5^{-0.4} \div \sqrt{57}$.
Write down your full calculator display.

Answer(a) .... [1]

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

Answer(b) .... [1]

9 **(a)** Write 2.8×10^2 as an ordinary number.

Answer(a) .... [1]

(b) Work out $2.5 \times 10^8 \times 2 \times 10^{-2}$.
Give your answer in standard form.

Answer(b) .... [2]

3 Work out $4 \times 10^{-5} \times 6 \times 10^{12}$.
Give your answer in standard form.

Answer .... [2]

18) June 2015 V1

3   Write 270 000 in standard form.

Answer .... [1]

19) June 2015 V2

1   Write 53 400 000 in standard form.

Answer .... [1]

20) November 2015 V3

3   Write 1.7×10^{-4} as an ordinary number.

Answer .... [1]

4 Write in standard form.

(a) 2 470 000

.... [1]

(b) 0.0079

.... [1]

22) June 2016 V1

3   Write 1.27×10^{-3} as an ordinary number.

.... [1]

23) June 2016 V2

1   Write 0.000 057 4 in standard form.

.... [1]

24) November 2016 V1

5   **(a)** Write 5^{-3} as a fraction.

.... [1]

(b) Write 0.004 56 in standard form.

.... [1]

8 Here are some numbers written in standard form.

3.4×10^{1} $\qquad$ 1.36×10^{6} $\qquad$ 7.9×10^{0} $\qquad$ 2.4×10^{5} $\qquad$ 5.21×10^{3} $\qquad$ 4.3×10^{2}

From these numbers, write down

(a) the largest number,

.... [1]

(b) the smallest number.

.... [1]

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

.... [2]