

Standard Form

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **24**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 (a) Write 480 000 in standard form.

[1 mark]

Answer _____

(b) Write 0.000 64 in standard form.

[1 mark]

Answer _____

(c) Write 4.08×10^3 as an ordinary number.

[1 mark]

Answer _____

(d) Write 6×10^{-2} as an ordinary number.

[1 mark]

Answer _____

- 2 Circle the number written in standard form.

[1 mark]

$$36 \times 10^5$$

$$0.7 \times 10^{-2}$$

$$3 \times 1000$$

$$8.4 \times 10^6$$

- 3 Zara says,
'25 000 in standard form is 25×10^3 '

Is she correct? Tick a box.
Give a reason for your answer.

[1 mark]

☐ Yes

☐ No

- 4 Write the number four million thirty thousand six hundred in standard form.

[2 marks]

Answer _____

- 5 Work out $(3 \times 10^4) \times (2 \times 10^5)$
Give your answer in standard form.

[2 marks]

Answer _____

- 6** Work out $(8 \times 10^6) \div (4 \times 10^2)$
Give your answer in standard form.

[2 marks]

Answer _____

- 7** Work out $(5 \times 10^3) \times (7 \times 10^4)$
Give your answer in standard form.

[2 marks]

Answer _____

- 8** Work out $3000 \times 50\,000$
Give your answer in standard form.

[2 marks]

Answer _____

- 9** Work out $60\,000\,000 \div 300$
Give your answer in standard form.

[2 marks]

Answer _____

- 10** Put these numbers in order, starting with the smallest.

$$4.2 \times 10^3 \quad 3.9 \times 10^4 \quad 5.1 \times 10^{-1} \quad 42\,000$$

[2 marks]

Answer _____

- 11** You may use a calculator.

Work out $\frac{7.44 \times 10^{12}}{2.4 \times 10^5}$

Give your answer in standard form.

[2 marks]

Answer _____

- 12** The mass of an electron is 9.1×10^{-31} kg.
The mass of a proton is 1.67×10^{-27} kg.

You may use a calculator.

How many times heavier is a proton than an electron?

Give your answer to 3 significant figures.

[2 marks]

Answer _____