

Standard Form

For Pearson Edexcel GCSE Mathematics (1MA1) • 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 572 000 in standard form.

.....
(1)

(b) Write 0.00847 in standard form.

.....
(1)

(c) Write 7.3×10^{-4} as an ordinary number.

.....
(1)

(d) Write 2.06×10^5 as an ordinary number.

.....
(1)

(Total for Question 1 is 4 marks)

- 2 Explain why 0.46×10^{-2} is not in standard form.

(1)

(Total for Question 2 is 1 mark)

- 3 Write these numbers in order of size.
Start with the smallest number.

0.0035 3.5×10^{-4} 3.5×10^{-2} 0.00035×10^3

.....
(2)

(Total for Question 3 is 2 marks)

- 4 Work out $(4.5 \times 10^7) \times (2 \times 10^{-3})$
Give your answer in standard form.

.....
(2)

(Total for Question 4 is 2 marks)

- 5 Work out $\frac{6.3 \times 10^8}{9 \times 10^2}$
Give your answer in standard form.

.....
(2)

(Total for Question 5 is 2 marks)

- 6 Work out $(2.4 \times 10^5) + (3.8 \times 10^4)$
Give your answer in standard form.

.....
(2)

(Total for Question 6 is 2 marks)

- 7 Work out $\frac{0.05 \times 0.0006}{0.02}$
Give your answer in standard form.

.....
(2)

(Total for Question 7 is 2 marks)

- 8 A computer takes 2.5×10^{-9} seconds to carry out one calculation.
Work out the number of calculations the computer can carry out in 0.04 seconds.
Give your answer in standard form.

.....
(2)

(Total for Question 8 is 2 marks)

- 9 You may use a calculator.
A light year is 9.46×10^{12} km.
A star is 4.2 light years away.
Work out the distance to the star in km.
Give your answer in standard form correct to 3 significant figures.

..... km
(2)

(Total for Question 9 is 2 marks)

- 10 You may use a calculator.
Work out $\frac{4.8 \times 10^5 \times 3.5 \times 10^{-2}}{2.8 \times 10^{-3}}$
Give your answer in standard form.

.....
(2)

(Total for Question 10 is 2 marks)

11 You may use a calculator.

The population of the UK is about 6.8×10^7

The population of Wales is about 3.1×10^6

What percentage of the UK population lives in Wales?

Give your answer to 1 decimal place.

.....
(3)

(Total for Question 11 is 3 marks)
