

GCSE Maths Standard Form, Indices and Surds (Foundation): check-up and exam-style questions: worksheet

GCSE Maths - Standard Form, Indices and Surds - Foundation - Test yourself

Name: _____

Date: _____

Score: _____

20 questions. Write your answers in the spaces. Answers and step-by-step help are free at websink.site/gcse/maths/ch06-standard-form-indices-surds/foundation/check-up-and-exam-style-questions/

Exercise 6Z Check-up (non-calculator)

Non-calculator

- 1 Write 45,000 in standard form.

Answer: _____

- 2 Write 3.2×10^{-3} as an ordinary number.

Answer: _____

- 3 Write $(2^5 \times 2^3) \div 2^4$ as a single power of 2.

Answer: _____

- 4 Work out 5^{-2} .

Answer: _____

- 5 Simplify $3x^2 \times 4x^3$.

Answer: _____

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

Answer: _____

- 7 Work out the area of a circle with radius 5 cm. Give your answer in terms of π .

Answer: _____

- 8 Work out $\sqrt{49} + \sqrt[3]{8}$.

Answer: _____

- 9 Which is larger, 3.2×10^5 or 9.9×10^4 ?

Answer: _____

- 10 Write 10^{-2} as a decimal.

Answer: _____

Exercise 6X Exam-style questions

Non-calculator

- 1 Write 7,300,000 in standard form.

[1 mark]

Answer: _____

- 2 Write 4.5×10^{-4} as an ordinary number.

[1 mark]

Answer: _____

3 Write $2^3 \times 2^4$ as a single power of 2. [1 mark]

Answer:

4 Work out $(3.2 \times 10^4) \times (2.5 \times 10^3)$. Give your answer in standard form. [2 marks]

Answer:

5 Simplify $6a^5 \div 2a^2$. [2 marks]

Answer:

6 Work out 4^{-2} . Give your answer as a fraction. [2 marks]

Answer:

7 Write these numbers in order of size, smallest first: 6.1×10^3 , 8.2×10^{-2} , 5.9×10^3 , 1.7×10^4 . [2 marks]

Answer:

8 A shape is made from a rectangle 8 cm by 3 cm and a semicircle of diameter 8 cm on one end. Work out the exact area of the shape. [3 marks]

Answer:

9 Light travels at 3×10^8 m/s. The Moon is 3.84×10^8 m from the Earth. Work out how many seconds light takes to travel from the Moon to the Earth. Give your answer to 3 significant figures in standard form.

Answer:

[3 marks]

10 A cube has a volume of 343 cm^3 . Work out the total surface area of the cube. [3 marks]

Answer: