5.4 Standard Form: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Write 0.0072 in standard form.

(Total for Question 1 is 1 mark)

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2 A small marble has mass 0.00038 kg. Give the mass of the marble in standard form to two significant figures.

(Total for Question 2 is 2 marks)

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3 720000 is to be written in standard form.
Put a ring around the number that is correctly written in standard form.

- ☐ A) 72×10^4
- ☐ B) 7.2×10^5
- ☐ C) 0.72×10^6
- ☐ D) 7.2×10^4

(Total for Question 3 is 1 mark)

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

(Total for Question 4 is 2 marks)

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5 Which is larger, 6.4×10^3 or 5.9×10^4? Write down the larger number, in standard form.

(Total for Question 5 is 1 mark)

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6 Which is larger, 3.6×10^8 or 2.9×10^9? Explain your answer briefly.

(Total for Question 6 is 1 mark)

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Mark scheme · 5.4 Standard Form: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

7.2×10^{-3} cao **B1**

Answer: 7.2×10^{-3}

Question 2

convert 0.00038 to 3.8×10^{-4} or show appropriate rounding **M1**

3.8×10^{-4} cao **A1**

Answer: 3.8×10^{-4}

Question 3

B **B1**

Answer: B (7.2×10^{5})

Question 4

$2 \times 3 = 6$ and $10^{5} \times 10^{3} = 10^{8}$ seen, or 6×10^{8} oe unsimplified **M1**

6×10^{8} cao **A1**

Answer: 6×10^{8}

Question 5

5.9×10^{4} oe (59000) **B1**

Answer: 5.9×10^{4}

Question 6

2.9×10^{9} is larger, because exponent $9 > 8$ so it is 10 times larger order of magnitude oe **B1**

Answer: 2.9×10^{9} is larger because its power of 10 is greater (10^{9} vs 10^{8}).

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