Year 9 Standard Form and Bounds – Challenge

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Year 9 · Maths · Standard Form, Powers of Ten and Bounds · Level 3 Challenge · 8 questions

Name _____ **Date** _____

A. Think like a mathematician

1. Hana says if a length is 6 m to the nearest metre, it could be exactly 6.5 m. Is Hana right? Explain.

Answer _____

2. Jade says multiplying by 10^{-2} is the same as dividing by 100. Is Jade right? Explain.

Answer _____

3. Kofi says $(2 \times 10^5) + (1 \times 10^5) = 3 \times 10^{10}$. Spot the mistake and give the correct answer.

Answer _____

4. Chen says $4.2 \div 10^{-3} = 0.0042$. Spot the mistake and give the correct answer.

Answer _____

5. Two planks are 68 cm and 59 cm long, each correct to the nearest cm. Can their total length be 128 cm? Explain.

Answer _____

6. Without changing them to ordinary numbers, explain which is larger: 4.6×10^{6} or 1.1×10^{7}.

Answer _____

7. A country has a population of 7.5×10^7 people and an area of 2.5×10^5 km². How many people are there per km², on average? Give your answer as an ordinary number.

Answer _____

8. Work out $(6.4 \times 10^{-6}) + (4 \times 10^{-7})$. Give your answer in standard form.

Answer _____