Standard Form

SCAN ME

REVISE THIS TOPIC

CHECK YOUR ANSWERS

SCAN ME

For the entire booklet

1 (a) Write 6.2×10^3 as an ordinary number. **[1 mark]**

Answer _____

1 (b) Write the number 14000 in standard form. **[1 mark]**

Answer _____

2 (a) Write 3.3×10^{-5} as an ordinary number. **[1 mark]**

Answer _____

2 (b) Write the number 0.0004 in standard form. **[1 mark]**

Answer _____

3 (a) Write 9.3×10^{-4} as an ordinary number. **[1 mark]**

Answer _____

3 (b) Write the number 65200 in standard form. **[1 mark]**

Answer _____

6

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4 (a) Write 9.61×10^6 as an ordinary number. **[1 mark]**

Answer _____

4 (b) Write the number 0.62 in standard form. **[1 mark]**

Answer _____

5 (a) Write 8×10^{-2} as an ordinary number. **[1 mark]**

Answer _____

5 (b) Write the number 770 000 in standard form. **[1 mark]**

Answer _____

6 (a) Write 7.5×10^2 as an ordinary number. **[1 mark]**

Answer _____

6 (b) Write the number 0.0404 in standard form. **[1 mark]**

Answer _____

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7 (a) Write the number five million in standard form. **[1 mark]**

Answer _____

7 (b) Write the number six thousand three hundred in standard form. **[1 mark]**

Answer _____

8 Write the following in order of size.
Start with the smallest. **[2 marks]**

6×10^4 6.7×10^2 9×10^3 9.5×10^{-1}

_____

_____

_____

Answer _____

9 Write these numbers in order of size.
Start with the smallest number. **[2 marks]**

4×10^{-1} 3×10^{-3} 5×10^2 5.1×10^{-4}

_____

_____

_____

Answer _____

12

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

[2 marks]

5.5×10^4 55×10^2 550×10^3 0.55×10^7

Answer _____

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

[2 marks]

0.099×10^{-4} 0.99×10^{-3} 9.9×10^{-5} 990×10^{-9}

Answer _____

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

[2 marks]

3.1×10^5 3100×10^{-1} 0.31×10^5 31×10^2

Answer _____

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13 The table shows some information about some planets.

Planet	Distance from Sun (miles)
Mercury	
Earth	9.3×10^7
Jupiter	4.84×10^8
Saturn	9×10^8
Uranus	

13 (a) Write the distance of Saturn from the sun as an ordinary number. **[1 mark]**

Answer _____ miles

13 (b) Mercury is 35 000 000 miles from the sun.
Uranus is twice as far from the sun as Saturn is.
Complete the table giving your answers in standard form. **[2 marks]**

13 (c) Mars is 1.42×10^8 miles from the sun.
Craig says

"Mars is closer to the sun than Earth is because 1.42 is less than 9.3".

Is Craig correct?
Tick one box and give a reason for your answer. **[1 mark]**

☐ Yes ☐ No ☐ Not possible to tell

Reason _____

_____

_____

10

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14 Suresh needs to write 32000 in standard form.

His answer is 32×10^3

14 (a) Explain why Suresh's answer is incorrect. **[1 mark]**

Lisa needs to write 0.068 in standard form.

Her answer is 6.8×10^2

14 (b) Explain why Lisa's answer is incorrect. **[1 mark]**

15 (a) Work out $(3 \times 10^4) \times (5 \times 10^6)$
Give your answer in standard form. **[2 marks]**

Answer _____

15 (b) Work out $(7 \times 10^8) \div (2 \times 10^4)$
Give your answer in standard form. **[2 marks]**

Answer _____

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16 (a) Work out $(8 \times 10^{8}) \times (9 \times 10^{-3})$
Give your answer as an ordinary number. **[2 marks]**

Answer _____

16 (b) Work out $(9 \times 10^{5}) \div (3 \times 10^{2})$
Give your answer as an ordinary number. **[2 marks]**

Answer _____

17 (a) Work out $(2 \times 10^{10}) \times (4.3 \times 10^{4})$
Give your answer in standard form. **[2 marks]**

Answer _____

17 (b) Work out $(9 \times 10^{5}) \div (2 \times 10^{-2})$
Give your answer in standard form. **[2 marks]**

Answer _____

14

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18 (a) Work out $(5 \times 10^3)^2$
Give your answer in standard form. **[2 marks]**

Answer _____

18 (b) Work out $(3 \times 10^6) \div (6 \times 10^2)$
Give your answer in standard form. **[2 marks]**

Answer _____

19 (a) Work out $(9 \times 10^{-3})^2$
Give your answer in standard form. **[2 marks]**

Answer _____

19 (b) Work out $\dfrac{2 \times 10^9}{8 \times 10^4}$ **[2 marks]**

Give your answer in standard form.

Answer _____

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20 (a) Work out $(3 \times 10^{10})^3$
Give your answer in standard form. **[2 marks]**

Answer _____

20 (b) Work out $(6 \times 10^4) \div (5 \times 10^{-3})$
Give your answer in standard form. **[2 marks]**

Answer _____

21 (a) Work out $(5 \times 10^4) + (2.3 \times 10^2)$
Give your answer in standard form. **[2 marks]**

Answer _____

21 (b) Work out $(6 \times 10^4) - (4 \times 10^3)$
Give your answer in standard form. **[2 marks]**

Answer _____

16

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22 (a) Work out $(6.6 \times 10^2) + (1.5 \times 10^{-2})$
Give your answer as an ordinary number. **[2 marks]**

Answer _____

22 (b) Work out $(8.02 \times 10^5) - (1 \times 10^2)$
Give your answer as an ordinary number. **[2 marks]**

Answer _____

23 (a) Work out 30000×2300
Give your answer in standard form. **[2 marks]**

Answer _____

23 (b) Work out $600000 \div 5000$
Give your answer in standard form. **[2 marks]**

Answer _____

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24 $a = 6.3 \times 10^4$ $b = 2.1 \times 10^2$

24 (a) Work out the value of $3a$
Give your answer in standard form. **[2 marks]**

Answer _____

24 (b) Work out the value of $\frac{a}{b}$ **[2 marks]**

Give your answer in standard form.

Answer _____

24 (c) Work out the value of $a + b$
Give your answer in standard form. **[2 marks]**

Answer _____

24 (d) Work out the value of b^2
Give your answer in standard form. **[3 marks]**

Answer _____

17

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25 $4400 = 4.4 \times 10^n$

25 (a) Write $4.4 \times 10^{(n+1)}$ as an ordinary number. **[2 marks]**

Answer _____

25 (b) Write 4.4×10^{-n} as an ordinary number. **[2 marks]**

Answer _____

25 (c) Write 4.4×10^{2n} as an ordinary number. **[2 marks]**

Answer _____

26 Work out $\dfrac{(6 \times 10^6) \times (8 \times 10^3)}{(2 \times 10^3) - (8 \times 10^2)}$

Give your answer in standard form. **[4 marks]**

Answer _____

10

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