



# Standard Form



REVISE THIS TOPIC

CHECK YOUR ANSWERS



1 (a) Write  $6.2 \times 10^3$  as an ordinary number. [1 mark]

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_



For the entire booklet





4 (a) Write  $9.61 \times 10^6$  as an ordinary number. [1 mark]

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_

6 (a) Write  $7.5 \times 10^2$  as an ordinary number. [1 mark]

Answer \_\_\_\_\_

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

Answer \_\_\_\_\_





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]

$6 \times 10^4$

$6.7 \times 10^2$

$9 \times 10^3$

$9.5 \times 10^{-1}$

---

---

---

Answer \_\_\_\_\_

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

$4 \times 10^{-1}$

$3 \times 10^{-3}$

$5 \times 10^2$

$5.1 \times 10^{-4}$

---

---

---

Answer \_\_\_\_\_

Turn over ►





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

$5.5 \times 10^4$      $55 \times 10^2$      $550 \times 10^3$      $0.55 \times 10^7$

---

---

---

Answer \_\_\_\_\_

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

$0.099 \times 10^{-4}$      $0.99 \times 10^{-3}$      $9.9 \times 10^{-5}$      $990 \times 10^{-9}$

---

---

---

Answer \_\_\_\_\_

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

$3.1 \times 10^5$      $3100 \times 10^{-1}$      $0.31 \times 10^5$      $31 \times 10^2$

---

---

---

Answer \_\_\_\_\_



13 The table shows some information about some planets.

Planet	Distance from Sun (miles)
Mercury	
Earth	$9.3 \times 10^7$
Jupiter	$4.84 \times 10^8$
Saturn	$9 \times 10^8$
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  $1.42 \times 10^8$  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 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





14 Suresh needs to write 32000 in standard form.

His answer is  $32 \times 10^3$

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

---

---

Lisa needs to write 0.068 in standard form.

Her answer is  $6.8 \times 10^2$

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 \_\_\_\_\_





**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 \_\_\_\_\_

Turn over ►





**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  $\frac{2 \times 10^9}{8 \times 10^4}$   
Give your answer in standard form. **[2 marks]**

---

---

---

Answer \_\_\_\_\_







**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 \_\_\_\_\_

Turn over ►





**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  $30000 \times 2300$   
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 \_\_\_\_\_





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  $\frac{a}{b}$   
Give your answer in standard form. [2 marks]

---

---

---

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 \_\_\_\_\_

Turn over ►





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  $4.4 \times 10^{-n}$  as an ordinary number. [2 marks]

---

---

Answer \_\_\_\_\_

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

---

---

Answer \_\_\_\_\_

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

Give your answer in standard form. [4 marks]

---

---

---

---

---

---

---

Answer \_\_\_\_\_

$\frac{\quad}{10}$

