

Year 7 Maths

Practice Paper 2

This paper covers: Place value, ordering and rounding, Four operations, Fractions, decimals and percentages, Fractions and percentages of amounts, Properties of numbers, Add and subtract fractions, Sequences, Algebraic notation, Expressions and equations, Graphing data, Perimeter and area, Angles and polygons.

TIME ALLOWED
40 minutes
TOTAL MARKS
31
QUESTIONS
24

Name _____

Class _____ Date _____

INSTRUCTIONS

- Use black ink or a black ball-point pen.
- Answer every question in the space given.
- You may use a calculator.
- Show your working. Some marks are given for a correct method, even when the answer is wrong.

INFORMATION

- The marks for each question are shown in brackets, for example [1 mark].
- The questions start easier and get harder as you go.
- Diagrams are not drawn accurately unless the question says so.
- Check your answers if you have time at the end.

FOR THE MARKER

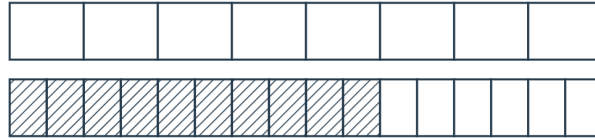
Score _____ **out of 31**

Percentage _____ %

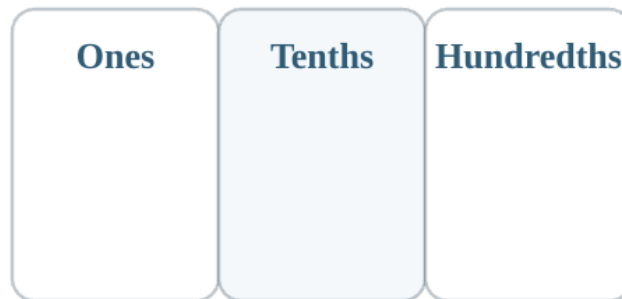
01 Questions

Answer every question. Show your working.

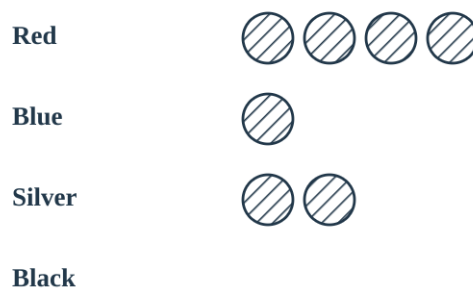
- 1** Shade the bottom bar, which is in eighths, so it shows the same as $\frac{10}{16}$. [1 mark]



- 2** Build 5.22 with counters in the chart. Draw the counters in the chart. [1 mark]

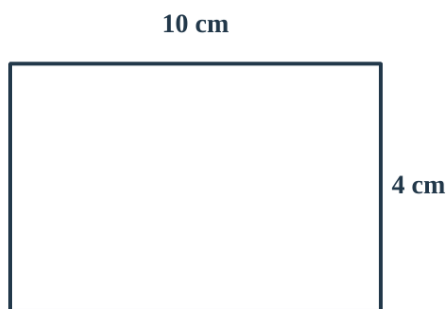


- 3** Black was chosen by 25 cars. Draw the Black row, where each picture stands for 5. Draw the symbols in the row. [1 mark]



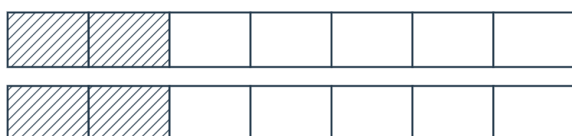
Key: each circle stands for 5 cars

- 4 Only two sides are marked on this rectangle. How many centimetres is it round the outside? [1 mark]



ANSWER

- 5 The bar shows $\frac{2}{7}$ in one colour and $\frac{2}{7}$ in another. What fraction is shaded altogether? Write your answer as a fraction. [1 mark]



ANSWER

- 6 Shade the bar to show $\frac{3}{4}$. [1 mark]



- 7 The top bar shows $\frac{1}{3}$. Each part of the bottom bar is a ninth. How many ninths is $\frac{1}{3}$? [1 mark]



ANSWER

- 8 $4 - 1 = ? - 4$. What number goes in the box? [1 mark]

ANSWER

- 9 The rule of a machine is $- 8$. If the input is x , what is the output as an expression? [1 mark]

ANSWER

- 10 $6 \times 4 = 24$. Use this fact to find $24 \div 4$. [1 mark]

ANSWER

- 11 Use the written layout to work out this calculation. [2 marks]

$$\begin{array}{r} 82.93 \\ + 30.96 \\ \hline \square\square\square\square\square \end{array}$$

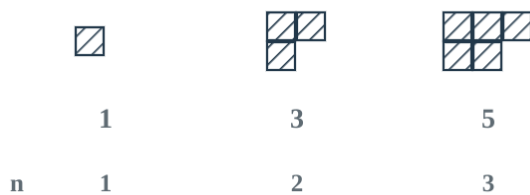
ANSWER

- 12 The line is in quarters. Which top-heavy fraction is the dot on? Write your answer as a fraction. [1 mark]



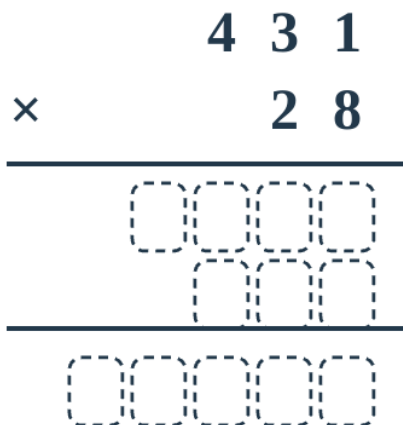
ANSWER

- 13 How many tiles will pattern 5 have? [2 marks]



ANSWER

- 14 Work out 431×28 with the written method, one row at a time. [2 marks]



ANSWER

- 15 This time put the cards in order, largest first. Write the numbers in order. [1 mark]

412

103

981

16 Work out $6745 \div 5$ with the bus stop, a digit at a time.

[2 marks]

$$\begin{array}{r} \\ 5 \overline{) 6745} \end{array}$$

ANSWER

17 Tara knows the machine does $\times 2$ and the output is 2. Tara works out the input as 1. What is wrong? Circle your answer.

[1 mark]

- ☐ The input is 2
- ☐ Nothing, 1 is right
- ☐ The input is 1: going backwards uses $\div 2$, not $\times 2$

18 Which is bigger: 30% of 400 or 80% of 120? Circle your answer.

[1 mark]

- ☐ 80% of 120 ☐ 30% of 400 ☐ They are equal

19 Which calculation gives 12,200? Circle your answer.

[1 mark]

- ☐ 122×100 ☐ $122 \div 100$ ☐ 122×10

20 Find 56% of 620, then find 10% of your answer.

[2 marks]

ANSWER

21 Write 72 as a product of prime factors using index notation, such as $2^2 \times 3$.

[2 marks]

ANSWER

22 Match each measurement to the same amount in the other unit. Draw a line from each item on the left to its match on the right. [1 mark]

- | | | |
|--------|---|-----------|
| 5 cm | • | • 50 mm |
| 5.5 km | • | • 5,500 m |
| 8 m | • | • 800 cm |

23 Two shapes are shown. Which of them has more sides? Circle the one you choose. [1 mark]

24 One parallelogram has an area of 42 square centimetres. A second parallelogram has the same height but a base twice as long. What is the area of the second one, in square centimetres? [2 marks]

ANSWER

Practice Paper 2

FOR THE MARKER

The marks for every question, the answers to accept and what to award for part of an answer. 31 marks in total.

1	5 of the 8 parts shaded	[1 mark]
	<i>Award the mark when the drawing or marking matches the answer shown.</i>	
2	5 in the 1 column, 2 in the 0.1 column, 2 in the 0.01 column	[1 mark]
	<i>Award the mark when the drawing or marking matches the answer shown.</i>	
3	5 symbols	[1 mark]
	<i>Award the mark when the drawing or marking matches the answer shown.</i>	
4	28 cm	[1 mark]
5	$\frac{4}{7}$	[1 mark]
6	3 of the 4 parts shaded	[1 mark]
	<i>Award the mark when the drawing or marking matches the answer shown.</i>	
7	3	[1 mark]
8	7	[1 mark]
9	$x - 8$	[1 mark]
10	6	[1 mark]
11	113.89	[2 marks]
	<i>Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.</i>	
12	$\frac{10}{4}$	[1 mark]
13	9	[2 marks]
	<i>Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.</i>	
14	12068	[2 marks]
	<i>Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.</i>	

15	981, 412, 103	[1 mark]
Award the mark when the drawing or marking matches the answer shown.		
16	1349	[2 marks]
Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.		
17	The input is 1: going backwards uses $\div 2$, not $\times 2$	[1 mark]
Award the mark for the correct choice only. Two or more choices marked scores no mark.		
18	30% of 400	[1 mark]
Award the mark for the correct choice only. Two or more choices marked scores no mark.		
19	122×100	[1 mark]
Award the mark for the correct choice only. Two or more choices marked scores no mark.		
20	34.72	[2 marks]
Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.		
21	$2^3 \times 3^2$	[2 marks]
Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.		
22	5 cm $\rightarrow$ 50 mm; 5.5 km $\rightarrow$ 5,500 m; 8 m $\rightarrow$ 800 cm	[1 mark]
Award the mark only when every part is correct.		
23	the first one	[1 mark]
Award the mark when the drawing or marking matches the answer shown.		
24	84 square centimetres	[2 marks]
Award 2 marks for the correct answer. Award 1 mark for a correct method with no more than one arithmetic error.		

Total

31 marks