

Year 7 Maths Practice Paper 1

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
45 minutes
TOTAL MARKS
37
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

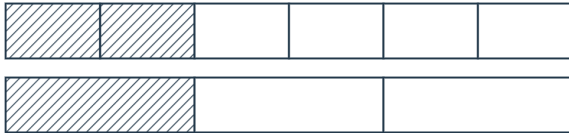
Score _____ **out of 37**

Percentage _____ %

01 Questions

Answer every question. Show your working.

- 1** The top bar shows $\frac{2}{6}$. The bottom bar shows the same amount in bigger parts. What fraction is that? Write your answer as a fraction. [1 mark]



Working area for question 1.

ANSWER

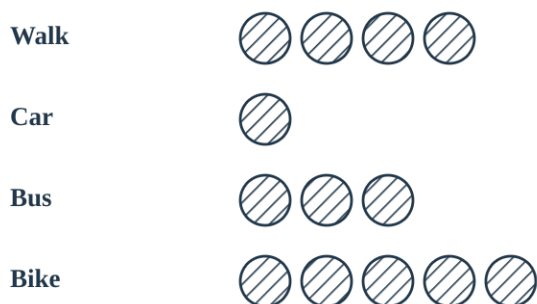
- 2** The bar is cut into 100 equal parts and 7 are shaded. What decimal is shaded? [1 mark]



Working area for question 2.

ANSWER

- 3** The chart shows how children travel to school. How many children are in the Walk row? [1 mark]

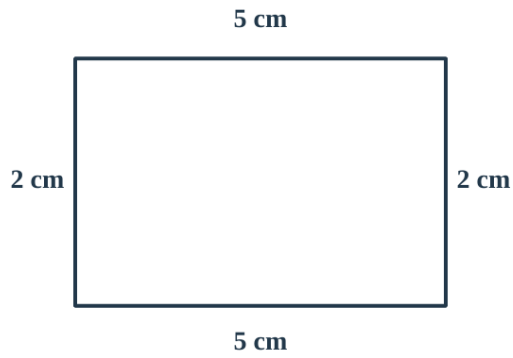


Key: each circle stands for 5 children

Working area for question 3.

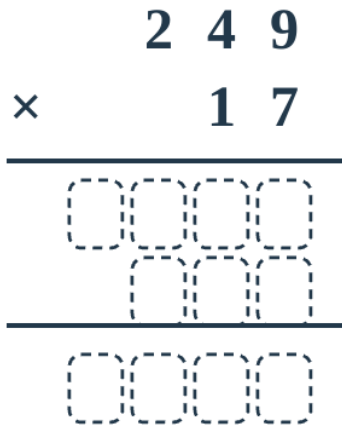
ANSWER

- 4 All four sides are marked. What is the distance around this rectangle in centimetres? [1 mark]



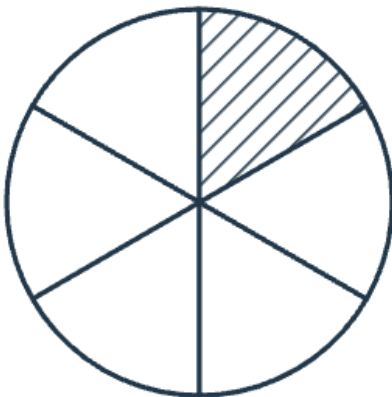
ANSWER

- 5 The written method for 249×17 starts with 249×7 . What is that first row? [1 mark]



ANSWER

- 6 What fraction of the circle is shaded? Write your answer as a fraction. [1 mark]



ANSWER

12 4 goes in and 8 comes out; 6 goes in and 10 comes out. Which rule is the machine using? Circle your answer. [1 mark]

☐ $x + 5$

☐ $x - 4$

☐ $x + 4$

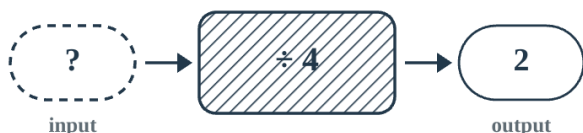
13 Work out $34.58 - 20.55$ one column at a time. [2 marks]

$$\begin{array}{r} 34.58 \\ - 20.55 \\ \hline \end{array}$$

Below the line are six dashed boxes for the answer:

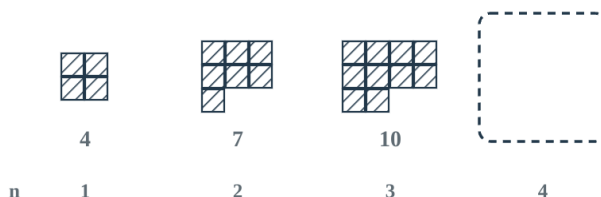
ANSWER

14 The output is 2. What number went in? [1 mark]



ANSWER

15 Build the next pattern in the empty box with the right number of tiles. Draw the next pattern in the box. [1 mark]



16 The scales balance with x on the left. What is x worth? [1 mark]



ANSWER

- 17** Grace writes $6 + 6 = 12 + 4$. Is this true? Circle your answer. [1 mark]
- ☐ Yes, because the answer comes straight after the equals sign
- ☐ Yes, because $6 + 6$ is 12
- ☐ No: the left is 12 and the right is 16

- 18** Zak has 3.8 km of rope and gets 1,050 m more. How much is that altogether, in metres? [3 marks]

ANSWER

- 19** A desk costs £200. In a sale, 50% is taken off the price. How much money is taken off? [3 marks]

ANSWER

- 20** 87 litres are shared equally between 10 pots. How much does each get? [3 marks]

ANSWER

- 21** Sort the shapes: those with 6 sides and those with a different number. Write each item under the right heading. [2 marks]

hexagon heptagon decagon octagon

6 sides

not 6 sides

- 22** Ellie walks $\frac{4}{12}$ of a mile, rests, then walks $\frac{5}{12}$ of a mile more. How far does Ellie walk in total? Write your answer as a fraction. [3 marks]

ANSWER

- 23** A phone costs £1,250. In a sale, 43% is taken off the price. How much money is taken off? [3 marks]

ANSWER

Page 10 of 10

- 24** Two students draw different factor trees for 36. Will they get the same prime factors? [1 mark]
Circle your answer.

- ☐ Yes, the prime factors of a number are always the same
- ☐ No, it depends on the first split

Practice Paper 1

FOR THE MARKER

The marks for every question, the answers to accept and what to award for part of an answer. 37 marks in total.

1	$\frac{1}{3}$	[1 mark]
2	0.07	[1 mark]
3	20	[1 mark]
4	14 cm	[1 mark]
5	1743	[1 mark]
6	$\frac{1}{6}$	[1 mark]
7	2	[1 mark]
8	7	[1 mark]
9	35 square centimetres	[1 mark]
10	>	[1 mark] <i>Award the mark for the correct choice only. Two or more choices marked scores no mark.</i>
11	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>
12	$x + 4$	[1 mark] <i>Award the mark for the correct choice only. Two or more choices marked scores no mark.</i>
13	14.03	[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	8	[1 mark]
15	13 dots	[1 mark] <i>Award the mark when the drawing or marking matches the answer shown.</i>
16	5	[1 mark]

17	No: the left is 12 and the right is 16	[1 mark]
<i>Award the mark for the correct choice only. Two or more choices marked scores no mark.</i>		
18	4850 metres	[3 marks]
<i>Award 3 marks for the correct answer. Award 2 marks for a complete method with no more than one arithmetic error. Award 1 mark for a correct first step.</i>		
19	£100	[3 marks]
<i>Award 3 marks for the correct answer. Award 2 marks for a complete method with no more than one arithmetic error. Award 1 mark for a correct first step.</i>		
20	8.7	[3 marks]
<i>Award 3 marks for the correct answer. Award 2 marks for a complete method with no more than one arithmetic error. Award 1 mark for a correct first step.</i>		
21	hexagon: 6 sides; heptagon: not 6 sides; decagon: not 6 sides; octagon: not 6 sides	[2 marks]
<i>Award 2 marks when every part is correct. Award 1 mark when there is exactly one error.</i>		
22	$\frac{9}{12}$	[3 marks]
<i>Award 3 marks for the correct answer. Award 2 marks for a complete method with no more than one arithmetic error. Award 1 mark for a correct first step.</i>		
23	£537.5	[3 marks]
<i>Award 3 marks for the correct answer. Award 2 marks for a complete method with no more than one arithmetic error. Award 1 mark for a correct first step.</i>		
24	Yes, the prime factors of a number are always the same	[1 mark]
<i>Award the mark for the correct choice only. Two or more choices marked scores no mark.</i>		

Total
37 marks