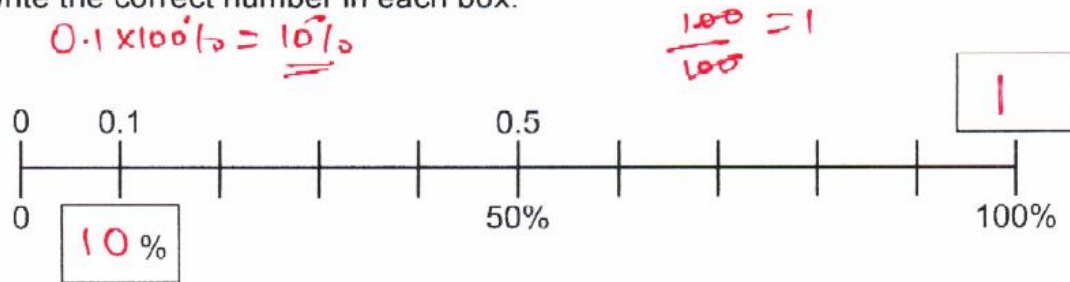


Fractions, Percentages, decimals and Proportions – Checkpoint Primary Math

1. No.7

Here is a number line showing decimals and their equivalent percentages.

Write the correct number in each box.



[1]

2. No.16

Naomi is thinking of a fraction.



My fraction is equivalent to $\frac{3}{4}$
 The denominator is less than 20
 The numerator is an odd number.

Handwritten notes:

$$\frac{3}{4} = \frac{15}{20} - \text{Less than 20}$$

odd numbers: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19

Write the fraction that Naomi is thinking of.

$$\frac{3}{4} \times \frac{4}{4} = \frac{12}{16}$$

$$\frac{3}{4} \times \frac{3}{3} = \frac{9}{12}$$

$$\frac{3}{4} \times \frac{5}{5} = \frac{15}{20}$$

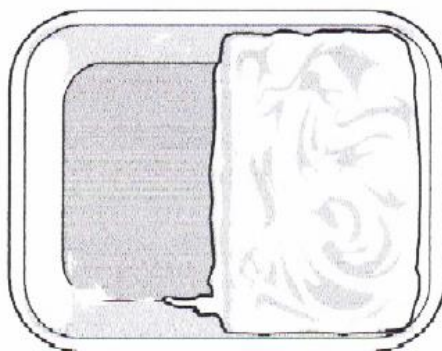
Fraction = $\frac{9}{12}$

$$\frac{9}{12}$$

[1]

3. No.17

Chen has half a tub of ice cream.



He shares the ice cream equally into four bowls.

Write the fraction of the whole tub that is in each bowl.

 $\frac{1}{2}$ tub of ice cream

$$\frac{1}{2} \div \frac{4}{1} = \frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$$

$$\frac{1}{8}$$

[1]

4. No.23

Tick (✓) all the statements that could be regrouped as 32.23

$$\begin{array}{r} 30.00 \\ + 0.13 \\ + 2.10 \\ \hline 32.23 \end{array}$$

$30 + 2.1 + 0.13$



$20 + 2.1 + 1.13$



$30 + 12.1 + 1.13$



$20 + 12.1 + 0.13$



$$\begin{array}{r} 20.0 \\ 2.1 \\ + 1.13 \\ \hline 23.23 \end{array}$$

$$\begin{array}{r} 30.0 \\ 12.1 \\ + 1.13 \\ \hline 43.23 \end{array}$$

$$\begin{array}{r} 20.0 \\ 12.1 \\ + 0.13 \\ \hline 32.23 \end{array}$$

[1]

5. No.25

Draw a line to match the calculation to the correct answer.

$$4.3 \times 5$$

20.15
 21.5
 21.05
 20.5

$$\begin{array}{r} 4.3 \\ \times 5 \\ \hline 21.5 \end{array}$$

[1]

6. No.30

Write a number in the box to make the statement correct.

$$\frac{7}{10} \text{ of } \$ \boxed{200} = \frac{2}{3} \text{ of } \$210$$

[1]

$$\begin{aligned} \frac{2}{3} \text{ of } 210 &= \frac{2}{3} \times 210 \\ &= \underline{\underline{140}} \end{aligned}$$

$$\frac{7}{10} \text{ of } x = 140$$

$$\frac{7x}{10} = 140 \times 10$$

$$\frac{7x}{7} = \frac{1400}{7} \quad x = \underline{\underline{200}}$$

7. No.1

Write a decimal number between 2 and 3 which has exactly 3 tenths and 5 hundredths.

$$\begin{aligned} 3 \text{ tenths} &= \frac{3}{10} (0.3) & 2 + 0.3 + 0.05 &= 2.35 \\ 5 \text{ hundredths} &= \frac{5}{100} = 0.05 & \underline{\underline{2.35}} & \end{aligned} \quad \text{..... [1]}$$

8. No.2

Draw lines to match each fraction to an equivalent percentage.

Handwritten calculations for the fractions:

- $\frac{25}{100} \div 25 = \frac{1}{4}$
- $60\% = \frac{60}{100} \div 2 = \frac{30}{50} = \frac{3}{5}$
- $\frac{15}{25} \div 5 = \frac{3}{5}$
- $\frac{7}{20} \div 2 = \frac{7}{40}$
- $\frac{1}{4} \div 1 = \frac{1}{4}$

Handwritten calculations for the percentages:

- $\frac{35}{100} \div 5 = \frac{7}{20}$
- $60\% = \frac{60}{100} \div 2 = \frac{30}{50} = \frac{3}{5}$
- $\frac{30}{50} \div 2 = \frac{15}{25}$
- $\frac{1}{4} \div 1 = \frac{1}{4}$

[1]

9. No.3

Write the numbers in order from smallest to largest.

7.8	8.6	6.8	7.6	8.7
<u>6.8</u>	<u>7.6</u>	<u>7.8</u>	<u>8.6</u>	<u>8.7</u>
smallest				largest

[1]

10. No.7

4

Rajiv has ten donkeys.

He shares three bags of food equally between his donkeys.

Rajiv says,

'In total each donkey will get $\frac{3}{10}$ of a bag of food.'

Write a fraction on the answer line to complete Rajiv's sentence.

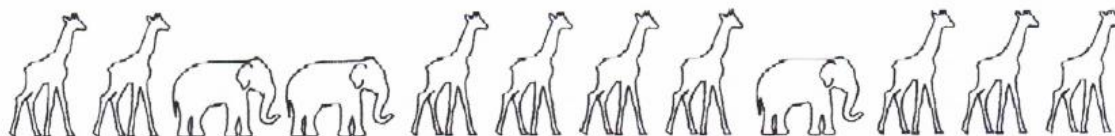
[1]

Total donkey = 10

Number of donkeys = $\frac{3}{10}$

11. No.8

Youssef puts some toy animals in a line.



Write the ratio of giraffes to elephants.

Number of giraffes = 9

Number of elephants = 3

Ratio G: E
 $\frac{9}{3}$ $\frac{9}{3}$: $\frac{3}{3}$ [1]

12. No.11

Calculate.

$$\frac{3}{8} - \frac{1}{4}$$

$$\frac{3}{8} - \frac{1}{4} = \frac{3-2}{8} = \frac{1}{8}$$

$$\frac{1}{8}$$

[1]

13. No.14

Here is a whole square.



Draw lines to match **each** diagram to the **two** equivalent number of squares it represents.

Draw lines to match **each** diagram to the **two** equivalent number of squares it represents.

	Diagram	Number of squares
$\frac{5}{2}$	1 1 $\frac{1}{2} = 2\frac{1}{2}$ 	3 $\frac{5}{4}$ $2\frac{1}{2}$ $1\frac{1}{4}$ $\frac{10}{4}$ $\frac{12}{4}$
$\frac{5}{4}$ $= 1\frac{1}{4}$		
$\frac{12}{4} = 3$		

Handwritten red lines connect the diagrams to the number boxes as follows:

- The first diagram (two full squares and one half-square) connects to 3 and $\frac{12}{4}$.
- The second diagram (one full square and one quarter-square) connects to $\frac{5}{4}$ and $1\frac{1}{4}$.
- The third diagram (three full squares) connects to 3 and $\frac{12}{4}$.

[2]

14. No.21

Carlos uses counters to show the number 0.58 on the chart.

10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	●	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009

Carlos multiplies 0.58 by 10

Draw counters on the chart to show his answer.

[1]

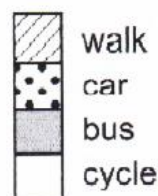
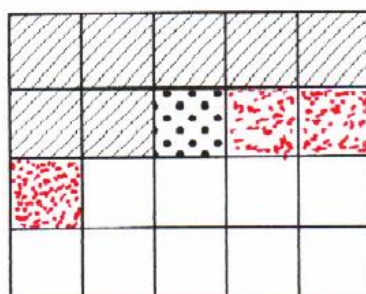
$$\frac{0.58}{10} = 0.058$$

$$0.58 \times 10 = 5.8$$

$$5 + 0.8 = \underline{\underline{5.8}}$$

15. No.24

The 80 children in Year 5 complete a survey about how they travel to school. The waffle diagram shows some of the survey results.



12 children travel to school by bus.

Complete the waffle diagram.

$$\frac{1}{20} \times 80 = 28 \text{ (walk)}$$

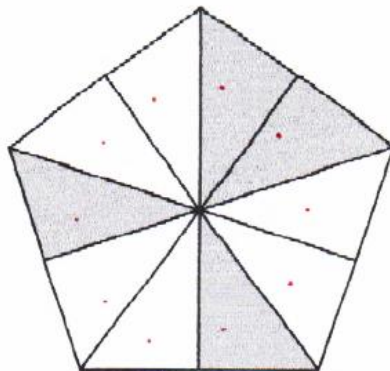
$$\frac{1}{20} \times 80 = 4 \text{ use car}$$

$$\text{Bus} = 12 \text{ children } \frac{12}{4} = 3 \text{ squares}$$

$$\text{cycle} = 9 \times 4 = 36$$

16. No.28

Here is a regular pentagon.



Write the percentage of the pentagon that is shaded.

Shaded triangles = $\frac{4}{10}$ 40 % [1]

$$\begin{aligned} \text{Percentage} &= \frac{4}{10} \times 100 \\ &= \underline{\underline{40\%}} \end{aligned}$$

17. No.29

Jamila makes a number sequence using number cards.
The numbers on the cards decrease by the same amount each time.

Write a number on each card to show the missing numbers in her sequence.



$$\begin{aligned} 9.5 - 2.5 &= 7 \\ 7 - 2.5 &= 4.5 \end{aligned}$$

$$\begin{aligned} 4.5 - 2.5 &= 2 \\ 2 - 2.5 &= -0.5 \end{aligned}$$

[2]