

20.01.22

I can divide a fraction by a whole number.

Independent

a. (S) $\frac{3}{5} \div 3$

$\frac{1}{3} + \frac{1}{3} + \frac{1}{3} = \text{Whole}$

$\frac{1}{3}$ of $\frac{3}{5} =$

$\frac{1}{3} \times \frac{3}{5} = \frac{3}{15} = \frac{1}{5}$

b. $\frac{8}{10} \div 4 = \frac{8}{40} = \frac{4}{20} = \frac{1}{5}$

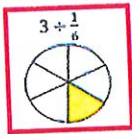
$\frac{1}{4} \times \frac{8}{10} = \frac{8}{40}$

C.W. 24.01.22

1 Lee has $\frac{2}{5}$ of a chocolate bar. He shares it with his friend. How much chocolate do they get each?



2 Use the diagrams to help you calculate:



To be discussed as a class and not answered independently initially.

Calculate:

$\frac{7}{8} \div 2$

$\frac{10}{13} \div 5$

$\frac{6}{7} \div 3$

Guided

1. $\frac{2}{5} \div 2 = \frac{1}{5}$

$\frac{1}{2} \times \frac{2}{5} = \frac{2}{10} = \frac{1}{5}$

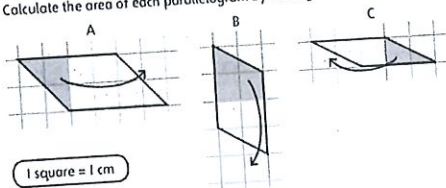
P.W. 2. $\frac{3}{4} \div 3 = \frac{1}{4}$

$\frac{3}{4} \times \frac{1}{3} = \frac{3}{12} = \frac{1}{4}$

$\frac{7}{8} \div 2 = \frac{7}{16}$ $\frac{7}{8} \times \frac{1}{2} = \frac{7}{16}$

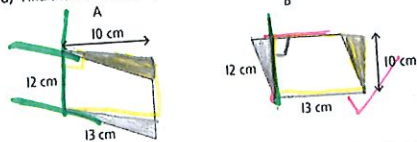
$\frac{10}{13} \div 5 = \frac{2}{13}$ $\frac{10}{13} \times \frac{1}{5} = \frac{10}{65} = \frac{2}{13}$

1. Calculate the area of each parallelogram by turning it into a rectangle.

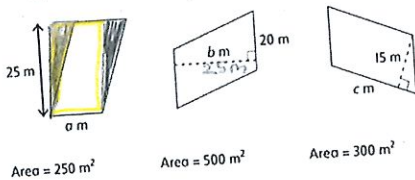


1 square = 1 cm

3. a) Find the area of each parallelogram.



4. Use the facts that are given in the diagrams to find lengths a, b and c.

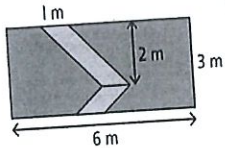


Area = 250 m²

Area = 500 m²

Area = 300 m²

- ? A path runs across a garden. What is the area of the path?



$$\begin{aligned} 2 \times 1 &= 2 \\ 1 \times 1 &= 1 \\ \text{Area of the path} &= 3 \text{ m}^2 \end{aligned}$$

$$\begin{aligned} 1. \quad A &= 8 \text{ cm}^2 \\ B &= 6 \text{ cm}^2 \\ C &= 3 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} 2. \quad a. \quad A &= L \times h \\ A &= 12 \times 10 \\ A &= 120 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} b. \quad A &= L \times h \\ A &= 12 \times 10 \\ A &= 130 \text{ cm}^2 \end{aligned}$$

$$\begin{array}{r} 12 \\ \times 13 \\ \hline 36 \\ + 120 \\ \hline 156 \end{array}$$

$$4. \quad a = 10 \text{ m}$$

10:02:22

C.W

$$b = 25 \text{ m}$$

$$c = 20 \text{ m}$$

$$15 \overline{) 180}$$



$$A = 3 \text{ m}^2$$

19.01.22

I can multiply ✓

1 On Saturday the boat makes 7 trips. It uses $\frac{1}{3}$ of a tank of fuel for each trip. How many tanks of fuel are used on Saturday?

Method

$$\frac{1}{3} \times 7 = \frac{7}{3} = 2 \frac{1}{3}$$

2 A fishing boat offers fishing trips. During each trip the boat travels $1 \frac{2}{5}$ km. How far does the boat travel in 4 trips? Work out the answer using both methods.

Method 1

$$1 \frac{2}{5} \times 4 = 1 \frac{8}{5} = 2 \frac{3}{5} \text{ c } 5 \frac{3}{5}$$



Lily and Zac both work on a homework project.

Lily: I spent $4 \frac{1}{4}$ hours a week for 4 weeks doing my project.

Zac: I spent $2 \frac{2}{5}$ hours a week for 5 weeks doing my project.

Who spent the most time on their project?

Explain your reasoning.

$$4 \frac{1}{4} \times 4 = 17$$

$$2 \frac{2}{5} \times 5 = 10 \frac{10}{5} = 12$$

Lily spent the most time on her project because if you times her hours the time is longer.

1 Bella is now making brownies. The bag of sugar is $\frac{1}{3}$ full. Bella uses $\frac{1}{3}$ of the sugar in the bag. What fraction of the bag will she use?

Method



2 The brownies take $\frac{2}{3}$ of an hour to cook. Amal is going to check on them when they have been cooking for $\frac{3}{4}$ of the time needed. What fraction of the hour will have passed when Amal checks on the brownies?



$\frac{1}{3}$ of the bag of flour

$$\frac{1}{3} \times \frac{3}{4}$$

$$\frac{1}{3} \times \frac{3}{4} = \frac{1}{4}$$

$$\frac{1}{3} \times \frac{3}{4} = \frac{1}{4}$$

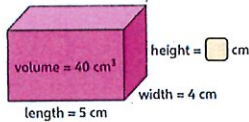
2. Half of the hour will have passed when a quarter is 1/4

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12} = \frac{1}{2}$$

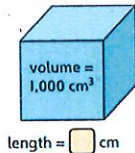
01.03.22

Can calculate the formula for volume.

This cuboid has a volume of 40 cm^3 .
Find the missing height.



A cube has a volume of $1,000 \text{ cm}^3$. Find the missing length.



Model

$$V = l \times w \times d$$

$$40 = 5 \times 4 \times ?$$

$$40 = 20 \times ?$$

$$\div 20 = \div 20$$

$$40 \div 20 = ?$$

$$2 = ?$$

$$\underline{\text{Height} = 2 \text{ cm}}$$

Guided

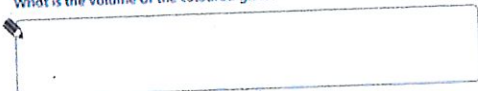
$$V = L \times W \times d$$

$$1000 = A \times A \times A$$

$$1000 = 10 \times 10 \times 10$$

$$L = \underline{10 \text{ cm}}$$

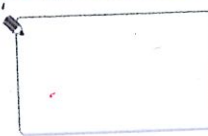
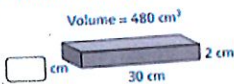
3. A sculptor carves a hole that is 10 cm long by 11 cm wide by 4 cm deep.
He fills the hole with coloured glass.
What is the volume of the coloured glass?



3.

$$V = 10 \times 11 \times 4 = 440 \text{ cm}^3$$

4. a) How wide is the piece of wood?



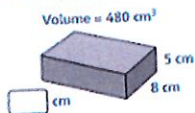
4. a.

$$V = 480 \text{ cm}^3$$

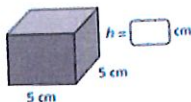
$$V = 30 \times 2 = 60$$

$$480 \div 60 = 8$$

- b) How long is the box?



5. This cuboid has a volume of 100 cm^3 .
What is the height of the cuboid?



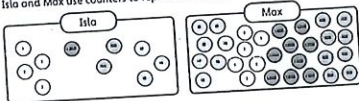
6. A cuboid has a volume of 80 m^3 . The length is greater than the height, which is greater than the width. Sketch two possible 3D shapes and label the dimensions.

11.01.22

I can solve multi-step addition and subtraction problems.

Th T O
9 7 7 6

1 Isla and Max use counters to represent different numbers.



a) Reena makes the number 14,321. How much bigger is Reena's number than Isla's number?

b) How much bigger is Reena's number than Max's number and Isla's number combined?

2 The Second World War ended in 1945. It started in 1939. How many years did the war last for?

Show an efficient method for working out the answer to this subtraction.

Independent

2.
$$\begin{array}{r} 1939 \\ - 1939 \\ \hline 0006 \end{array}$$
 / vs. Miss Fisher

The war lasted for 6 years.

How would you go about answering the questions below?
 $20,000 - 15,999 =$
 $310,064 + 400,536 =$
 Do you think that your method is the most efficient?

$\Delta 20,000 - 16,000 = 4,000$
 $4,000 + 1 = 4,001$

$\Delta 20,001 - 16,000 = 4,001$
 $20 - 16 = 4$

Modelled

1.a
$$\begin{array}{r} 14321 \\ - 1234 \\ \hline 13087 \end{array}$$

It is 13,087 more than Isla's number.

Guided

1.b
$$\begin{array}{r} 9776 \\ + 1234 \\ \hline 11010 \\ \small 1 \quad + \quad 1 \quad + \end{array} \quad \begin{array}{r} 14321 \\ - 11010 \\ \hline 03311 \end{array}$$

Reena's number is 3,311 more than Isla's and Max's numbers combined.

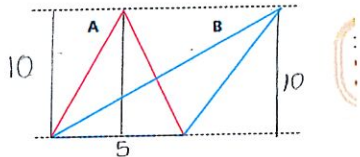
$20,000 - 15,999 =$
 I would add 1 to 15,999 to 16,000 and subtract it from 20,000.
 $4,000 + 1$

16.02.22

Guided Group



Which of these triangles has the larger area? Explain your reasoning.



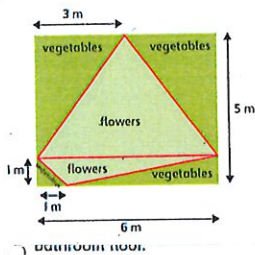
The formula for a triangle is $\text{base} \times \text{height} \div 2$.

Both triangles have the same size base because they fit together.

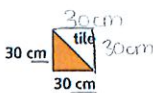
Although the dotted lines are parallel we can see that the perpendicular height is the same.

16.02.22

I can apply my knowledge to solve problems relating to area.



The school garden is a rectangular shape. Use both Ista's and Ma's methods to find the total area of the garden that is made up of flowers.



- What is the area of the floor?
- What is the area of one tile?
- How many triangular tiles are needed to cover the whole floor?

Guided

a. 1. $A = l \times w$
 $A = 6.5 \times 1$
 $A = 6.5 \text{ m}^2$ $6.5 \times 2 = 13 \text{ m}^2$

2. $A = l \times w$
 $A = 5 \text{ m}^2 \times 1$
 $A = 5 \text{ m}^2$

$5 \times 2 = 10 \text{ m}^2$

$A = 23 \text{ m}^2$

Partner Work

a. $A = l \times w$
 $A = 720 \div 45$
 $A = 16 \text{ m}^2$



450 cm^2

$7,200 \text{ cm}^2$
 $= 72 \text{ m}^2$

$900 \text{ cm}^2 = 9 \text{ m}^2$

$72 \div 9 = 8$
 $8 \times 2 = 16$

3. a. $1 \text{ m} = 100 \text{ cm}$

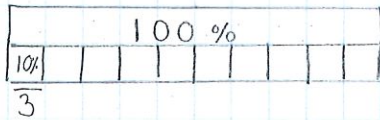
$A = l \times w$
 $A = 60 \times 12$
 $A = 7200 \text{ cm}^2$

b. $A = l \times w$
 $A = 30 \times 30 \div 2$
 $A = 450 \text{ cm}^2$

1 0.3.22

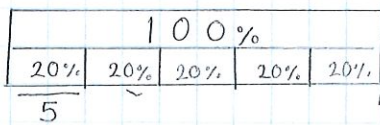
I can apply my knowledge of percentages

Model



1. 10% of 30 = 3

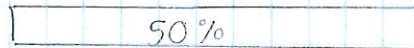
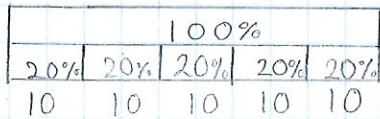
3 x 10 = 30



2. 20% of ~~100~~²⁵ = 5 - 25

Guided

3. 20% of 50 = 10



20% x 5 = 100%

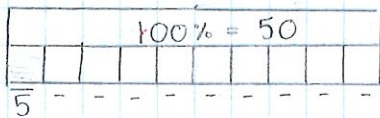
10 x 5 = 50

1 1.3.22

Continued Work

Model

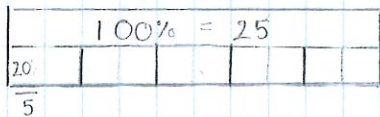
10% of ^{100%}50 = 5



5 x 10 = 50

SWEETS
100% =
50

20% of ¹25 = 5



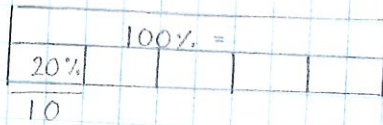
5 x 5 = 25

100% = 25 drinks

chocolate bar
100%

Partner Work

20% of $50 = 10$ sweets



$10 \times 5 = 50$

Independent

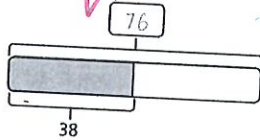
1. 10% of $30 = 30m$

2. 20% of $60 = £12$

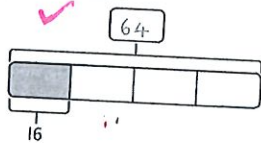
3. 5% of $5 = 25$ eggs

1 Fill in the missing values.

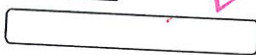
a) 50% of $76 = 38$



b) 25% of $64 = 16$

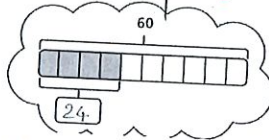


c) 10% of $15 = 1.5$

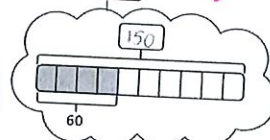


2 Match each calculation to the correct bar model. Then solve it.

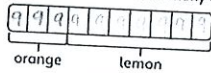
40% of $60 = 24$



40% of $150 = 60$



3 a) In a bag of orange and lemon sweets, 30% are orange and 63% sweets are lemon. How many orange sweets are there?



There are 27 orange sweets.

b) Amelia has a piece of string. She cuts off 25% . The piece that is left is 240 cm long. How long was the string before she cut it?

$10\% = 24$ $5\% = 12$ $4.8 + 12 = 60$
 $20\% = 48$ $240 \div 4 = 60$

The string was 300 cm long before Amelia cut it.