1.3.21 - Quick Maths

A

- Multiply each of these by 100

  3   12   5   50

- 75 + _____ = 100
- What is the perimeter of a square with sides of 5cm?
- Complete -
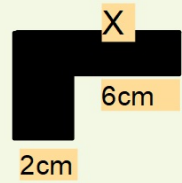
240			

Are there lots of possibilities? Why?

B

- _____ ÷ 100 = 15
- 1/8 + _____ = 5/8
- _____ of _____ = 56
- 2,050 + _____ = 5,000
- 70 x ___ = 1,400

Explain

Is x 12cm? **Why?**

X

6cm

2cm

Challenge

Is it the same?

11 × 11   99 + 18

Is **13 × 9** the same as…

130 − 9   39 × 3

Investigation

▲	♣	▲	⬤	☐
♣	⬤	♣	▲	25
⬤	⬤	⬤	⬤	20
▲	♣	♣	▲	☐
☐	☐	☐	26	
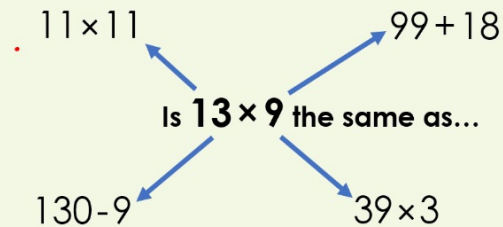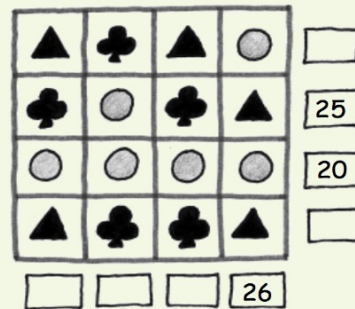
Flashback 4!

Flashback 4   Year 4

1) Find $\frac{1}{3}$ of 27

2) What is the sum of $\frac{2}{7}$, $\frac{3}{7}$ and $\frac{4}{7}$?

3) Complete the equivalent fractions.
$$\frac{4}{\square} = \frac{12}{21}$$

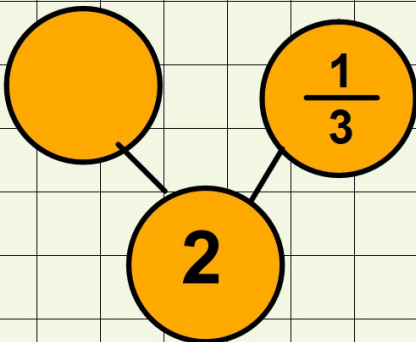4) Draw a shape with a perimeter of 8 centimetres.

White Rose Maths

Complete this as quickly as you can (verbally or through writing it down).

Review/Respond!

KEEP CALM AND RESPOND

Reviews are where we can assess to see how much previous knowledge has been remembered and responses can be made to previous learning. Please can you let us know too at home and we will incorporate any misconcpetions into this part of the lesson.

A

B

$\frac{1}{3}$

2

Explain the mistake below -

0 $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$ $\frac{4}{4}$ 1 $1\frac{1}{4}$ $1\frac{2}{4}$ $1\frac{3}{4}$ $1\frac{4}{4}$ 2 $2\frac{1}{4}$ $2\frac{2}{4}$ $2\frac{3}{4}$ $2\frac{4}{4}$ 3

Quick Review! - 1 and 0

Remember what happens when you multiply by 1 or 0 or divide by 1?

10 divided by 1 =

50 divided by 1 =

_____ divided by 1 = 65

30 x 0 =

400 x 0 =

_____ x 1 = 50

Challenge - Can you explain why multiplying by 0 gives you this answer?

1.3.21

<u>Learning Objective:</u>
Today I am learning to calculate fractions of amounts. ✅

<u>Key Vocabulary</u>
- fraction
- unit
- non-unit
- numerator
- improper fraction
- denominator
- out of
- parts
- equal

Use the White Rose slides/video to support these teaching slides before you complete the main task.

<u>Success Criteria</u>
I will be successful if I can -
- Identify a quantity.
- Use division to find one part of a quantity.
- Find more than one part of an amount/quantity.
- Find fractions of larger amounts and problem solve.

Previously...
Let's recap how we find fractions of amounts!

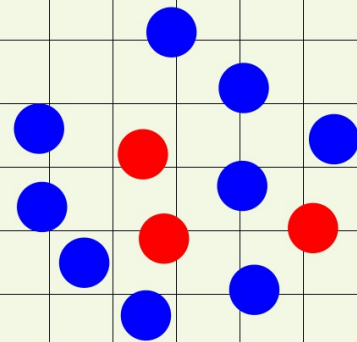12 divided by 4 = 3 (3 4s in 12) and 3 x 3 = 9

Step 2 - multiply by the amount of parts shown/asked for/given

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

Step 1 - Divide the whole by the total number of equal parts that it is split into. This will always give you ONE part.

You calculate a fraction of an amount by...

Fractions of Amounts

Can you spot a pattern below?

1 Tim has 24 apples. Use counters to represent his apples and find:

$\frac{1}{2}$ of 24 $\frac{1}{4}$ of 24 $\frac{1}{3}$ of 24 $\frac{1}{6}$ of 24

Now calculate:

$\frac{2}{2}$ of 24 $\frac{3}{4}$ of 24 $\frac{2}{3}$ of 24 $\frac{5}{6}$ of 24

What do you notice?

Discuss/think about what you noticed.

If $^1/_6$ of a bag of sweets is 7 sweets, what is $^2/_6$ of the bag? $^3/_6$ or $^1/_2$ (equivalent fractions) of the bag, $^4/_6$ of the bag, $^5/_6$ of the bag, $^6/_6$ or 1 WHOLE of the bag?

Fractions of Amounts

Use your previous learning/strategies when calculating larger amounts and those involving measure and money.

$$\frac{3}{5}$$ of 200mm

20 divided by 5 = 4 (1 part)
4 x 3 = 12. With the 0 = 120mm

Tip: How many 5s are in 20? Then 'put' your 0 back on at the end.

Vocab Check! - We can't talk about 'adding 0s back on' as if you 'add' 0, the answer stays the same.

Fractions of Amounts

Use your previous learning/strategies when calculating larger amounts and those involving measure and money. Try these!
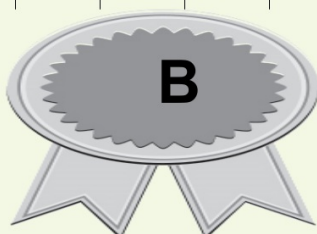
A $\dfrac{2}{6}$ of £5.40 =

B $\dfrac{4}{8}$ of £10.00 =

C $\dfrac{3}{11}$ of 220g =

I worked out __ by...

Main Task

1.3.21
Fractions of Amounts

A   **B**   **C**

Now complete '1.3.21 - Maths Main Task ABC. Gold Extra Challenge - Fractions Investigations

Challenges

I know... so...
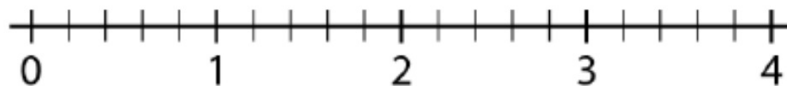
$\frac{1}{10}$ of 40 =

$\frac{3}{10}$ of 40 = 12

$\frac{3}{10}$ of 80 =

40									
4	4	4	4	4	4	4	4	4	4
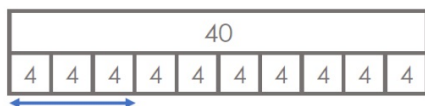
Try to show the last question in this first challenge as a bar model!

'Position these numbers on the number line:'

$\frac{3}{5}$, $1\frac{2}{5}$, $2\frac{1}{5}$, $2\frac{4}{5}$

0   1   2   3   4

True or False?

Try to explain your reasoning!

True or False ?   Calculate fractions of a quantity

$$\frac{3}{8} \text{ of } 16 = 2$$

White Rose Maths