Quick Maths - 25.2.21
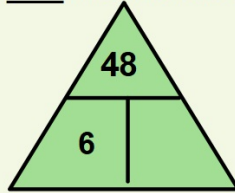
A

- Add 100 to each of these numbers.

  1,801   970   14,300

- 1,775 + 25 ONES and ___ HUNDREDS = 2,000
- 820 - ___ = 280
- 1/2 of 100 =
- Complete -

(triangle diagram: 48 at top, 6 at bottom left)

B

- 8 x ____ = 6,400
- Partition 30,539
- 5 squared =
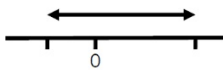- 4/5 of ____ = 32
- XX multiplied by V =

Explain

- 195 + 210 = Which method and why?

Challenge - Explain

Explain

'The difference between two numbers can be greater than their sum.'

(number line with 0 marked)

Explain why this is true when one of the numbers is negative.

Investigation

■■ + ■■ = ■■■

Stage 1: complete using digits 0-9

Stage 2: complete using digits 1, 2, 3, 5, 6, 7, 9

How many ways?

Flashback 4!

Flashback 4   Year 4

(clock face showing approximately 3:40)

1) Calculate $2 - \frac{3}{8}$

2) Add $\frac{2}{5}$ and $\frac{6}{5}$ together.

3) What is the difference between the area of red and blue?

(grid of red and blue squares)

4) Round 4,285 to the nearest hundred.

White Rose Maths

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

Quick Review! - Multiplication

Example - 50 x 30 (5 x 3 = 15) with the 2 0s = 1,500

40 x 10 =   60 x _____ = 1,200

4 x 400 =   800 x _____ = 16,000

800 x 20 =   20 x ____ = 140

50 x 50 =   80 x _____ 960

Challenge - Explain how you can use the inverse operation to solve these.

25.2.21

Learning Objective:

Today I am learning to understand and calculate simple fractions of amounts. ✅

Key Vocabulary
- fraction   - denominator
- division   - total
- unit/ non-unit   - parts
- numerator   - equal
- improper   - set
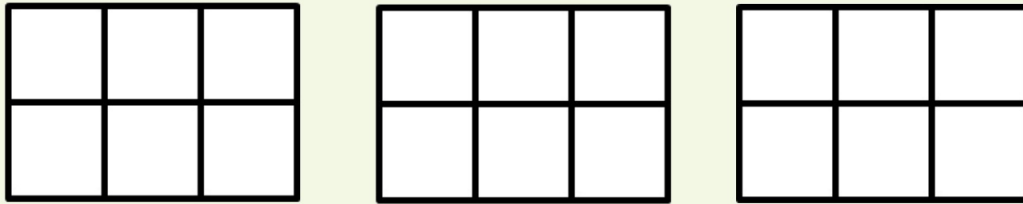
Success Criteria
I will be successful if I can -
  o Recognise an amount as a set.
  o Understand the link between a total and division.
  o Calculate one part of an amount.
  o Calculate more than one part of an amount.

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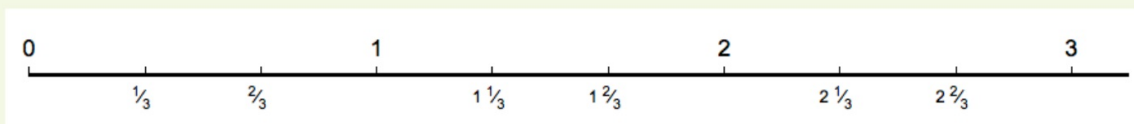
Recap!

A

Can you show how to subtract $\frac{4}{6}$ from 3?
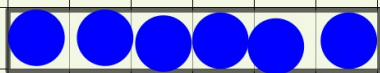
B Ben uses a numberline to find the difference between 3 and $\frac{2}{3}$ can you show this on the numberline?

```
0                    1              2              3
    ⅓      ⅔         1⅓    1⅔      2⅓    2⅔
```
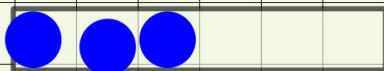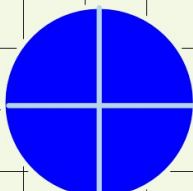
Vocabulary

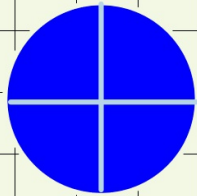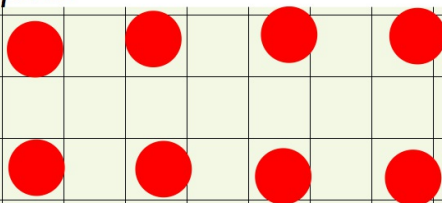Please match each representation and word.

Two Sixths

One Whole

$\frac{9}{6}$

Fractions of Amounts

An 'amount' is not just one 'fixed' whole like below.

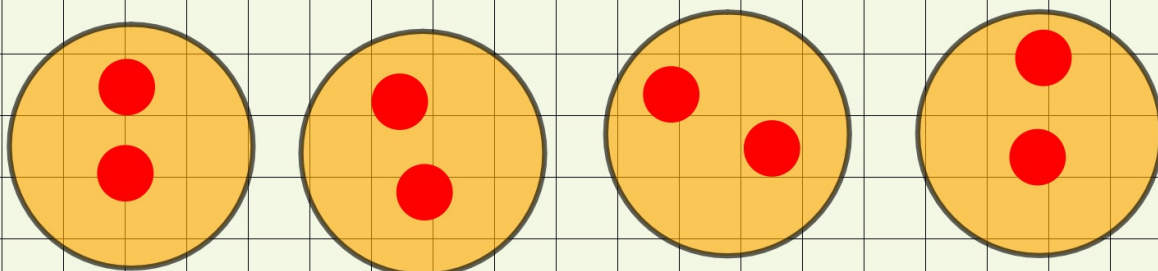*An 'amount' can also be a total 'quantity'. For example -*

Here there are 8.

We can calculate a fraction of this amount.

Fractions of Amounts

$\frac{1}{4}$ *Of* = **2**

We ALWAYS divide the total by the denominator. This gives us one part. See how it shows below.
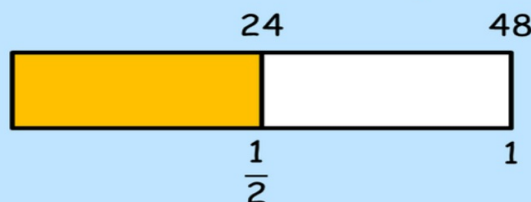
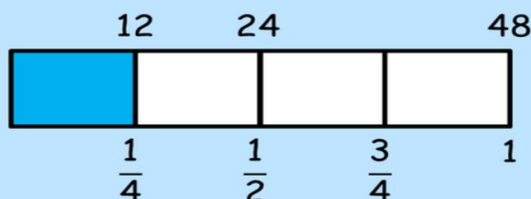**2 in each group. So 2 in one part!**

Halves and Quarters

Finding $\frac{1}{2}$ of an amount is the same as dividing that amount by 2.

e.g. $\frac{1}{2}$ of 48 = 24

24	48
$\frac{1}{2}$	1

Once you have found $\frac{1}{2}$, you can easily find $\frac{1}{4}$ by halving again.

e.g. $\frac{1}{4}$ of 48 = 12

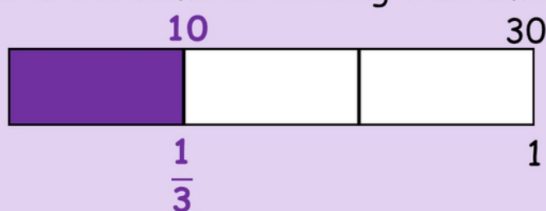| 12	24		48
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1

Finding fractions of amounts

The **denominator** tells us how many parts to divide into.

Finding $\frac{1}{3}$ of an amount is the same as dividing that amount by **3**.

So $\frac{1}{3}$ of 30 = 10

$30 \div 3 = 10$

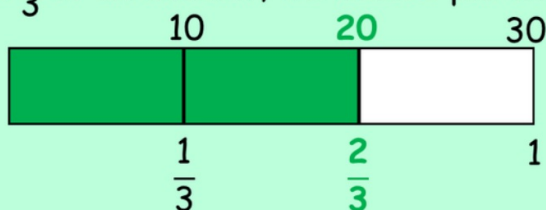| 10		30
$\frac{1}{3}$		1

The **numerator** tells us how many parts we want.

If we're asked to find $\frac{2}{3}$ of an amount, we need **2** parts.

If $\frac{1}{3}$ of 30 = 10

Then $\frac{2}{3}$ of 30 = 20

$10 \times 2 = 20$

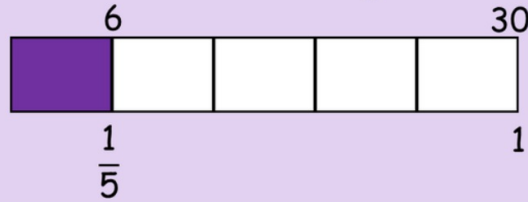| 10	20	30
$\frac{1}{3}$	$\frac{2}{3}$	1

Finding fractions of amounts

The **denominator** tells us how many parts to divide into.

Finding $\frac{1}{5}$ of an amount is the same as dividing that amount by **5**.
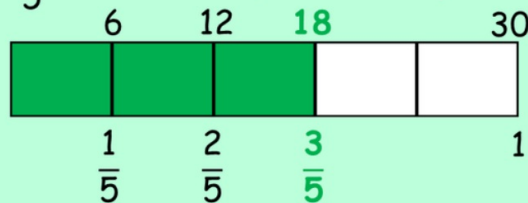
So $\frac{1}{5}$ of 30 = 6

$30 \div 5 = 6$

The **numerator** tells us how many parts we want.

If we're asked to find $\frac{3}{5}$ of an amount, we need **3** parts.

If $\frac{1}{5}$ of 30 = 6

Then $\frac{3}{5}$ of 30 = 18

$6 \times 3 = 18$

Main Task

Remember to choose your own level of challenge. You can do more than one if you wish and move between tasks if you face difficulties!

25.2.21
Fractions of Amounts

A   B   C

Now complete '25.2.21 - A or B Task.

Todays C challenge - *design a poster explaining how to calculate fractions of amounts. Use questions as examples and representations/diagrams!*
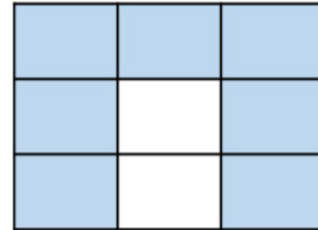
Challenges

Find the missing fractions:

$$\frac{7}{7} - \frac{3}{7} = \frac{2}{7} + \frac{\Box}{7}$$

$$\frac{\Box}{9} - \frac{5}{9} = \frac{4}{9} - \frac{2}{9}$$

How many fraction addition and subtractions can you make from this model?

True or False?

Try to explain your reasoning!

True or False? Fractions of a set of objects (1)

$\frac{4}{8}$ of the cars are green.

True or False? Fractions of a set of objects (2)

This shows 1 quarter of 12 sweets.