Year 4 Maths Thursday 11.2.21

Fractions

Recall:

Use bar models to find the following –

¾ of 20 =

2/5 of 30 =

1/3 of 33 =

2/4 of 44 =

Recall:

Use bar models to find the following –

¾ of 20 = 15

2/5 of 30 = 12

1/3 of 33 = 11

2/4 of 44 = 22

LO: I can use fractions to calculate quantities

Guided Practice:

If ¼ is 12, what is the whole?

?			
1/4	1/4	1/4	1/4

If we know the answer to the unit fraction, we can then use this to find the whole.

48			
12	12	12	12

Guided Practice: **Let's try one together**

Jack has a bottle of lemonade but he has already
drank 4/5 of it.
All that is left is 50ml.
How much was originally in the bottle?

How might we find the answer to this
question?
Are there any clues?
What do we know?

Guided Practice: **Let's try one together**

Jack has a bottle of lemonade but he has already drank 4/5 of it.
All that is left is 50ml.
How much was originally in the bottle?

If Jack has drank 4/5 of the lemonade, that means that 1/5 remains.
We know that 50ml remains and so 1/5 = 50ml.

?				
50				

Guided Practice: **Let's try one together**

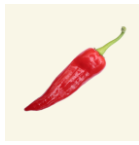If 1/5 of the total is 50, we need to multiply 50 by 5 (the denominator) in order to find what the whole (total) was.

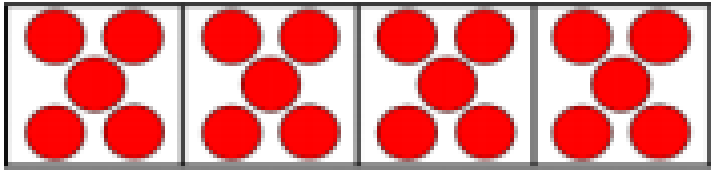| 250				
50	50	50	50	50

50 x 5 = 250

The bottle had 250ml of Lemonade in it at the beginning.

Intelligent Practice 🌶️

Use the counters and bar models to calculate the whole:
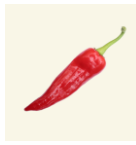
 There are ____ counters in one part.

$\frac{1}{4}$ = ____ $\frac{2}{4}$ = ____ $\frac{3}{4}$ = ____ $\frac{4}{4}$ or 1 whole = ____

Intelligent Practice 🌶️

Use the counters and bar models to calculate the whole:
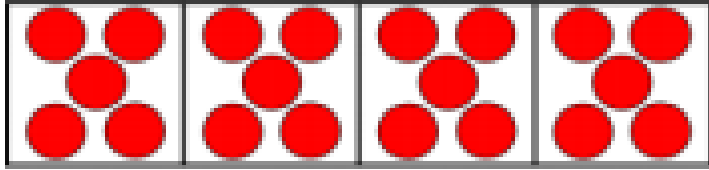
 There are __5__ counters in one part.

$\frac{1}{4} = $ __5__ $\frac{2}{4} = $ __10__ $\frac{3}{4} = $ __15__ $\frac{4}{4}$ or 1 whole = __20__

Intelligent Practice 🌶️

You could use diagrams, bar models or division and multiplication knowledge to solve these.

Whole	Unit Fraction	Non-unit Fraction
The whole is 24	$\frac{1}{6}$ of 24 = ____	$\frac{5}{6}$ of 24 = ____
The whole is ____	$\frac{1}{3}$ of ____ = 30	$\frac{2}{3}$ of ____ = ____
The whole is ____	$\frac{1}{5}$ of ____ = 30	$\frac{3}{5}$ of ____ = ____

Intelligent Practice

You could use diagrams, bar models or division and multiplication knowledge to solve these.

Whole	Unit Fraction	Non-unit Fraction
The whole is 24	$\frac{1}{6}$ of 24 = __4__	$\frac{5}{6}$ of 24 = __20__
The whole is __90__	$\frac{1}{3}$ of __90__ = 30	$\frac{2}{3}$ of __90__ = __60__
The whole is __150__	$\frac{1}{5}$ of __150__ = 30	$\frac{3}{5}$ of __150__ = __90__

Intelligent Practice

You could use diagrams, bar models or division and multiplication knowledge to solve these.

1) If 1/5 of a number is 11, what is the number? =

2) If ¼ of a number is 16, what is the number? =

3) If 2/8 of a number is 10, what is the number? =

4) If 2/6 of a number is 12, what is the number? =

Intelligent Practice

You could use diagrams, bar models or division and multiplication knowledge to solve these.

1) If 1/5 of a number is 11, what is the number? = 55
2) If ¼ of a number is 16, what is the number? = 64
3) If 2/8 of a number is 10, what is the number? = 40
4) If 2/6 of a number is 12, what is the number? = 36

Dive Deeper 1:

The school kitchen needs to buy carrots for lunch.

A large bag has 200 carrots and a medium bag has $\frac{3}{5}$ of a large bag.

Mrs Rose says,

> I need 150 carrots so I will have to buy a large bag.

Is Mrs Rose correct?
Explain your reasoning.

Dive Deeper 1:

The school kitchen needs to buy carrots for lunch.
A large bag has 200 carrots and a medium bag has $\frac{3}{5}$ of a large bag.
Mrs Rose says,

I need 150 carrots so I will have to buy a large bag.

Is Mrs Rose correct?
Explain your reasoning.

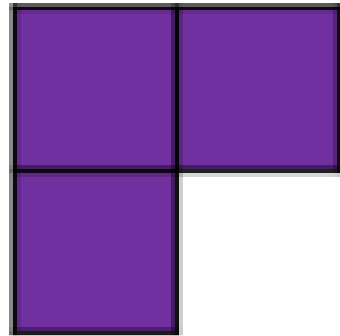200 divided by 5 = 40   40 = 1/5
40 x 3 = 120

Mrs Rose is correct.
$\frac{3}{5}$ of 200 = 120
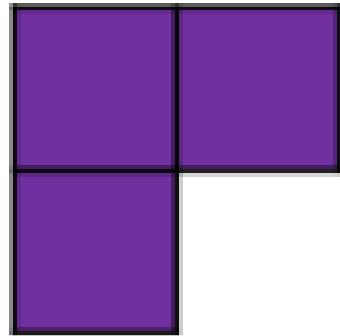Mrs Rose will need a large bag.

Dice deeper 2:

These three squares are $\frac{1}{4}$ of a whole shape.

How many different shapes can you draw that could be the complete shape?

Dice deeper 2:

These three squares are $\frac{1}{4}$ of a whole shape.

Lots of different possibilities. The shape should have 12 squares in total.

How many different shapes can you draw that could be the complete shape?