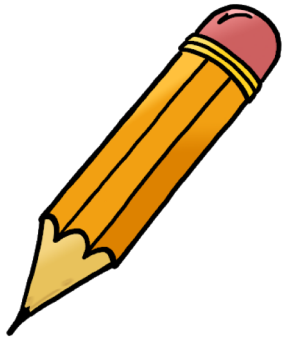
Year 6

Thursday 14th May 2020

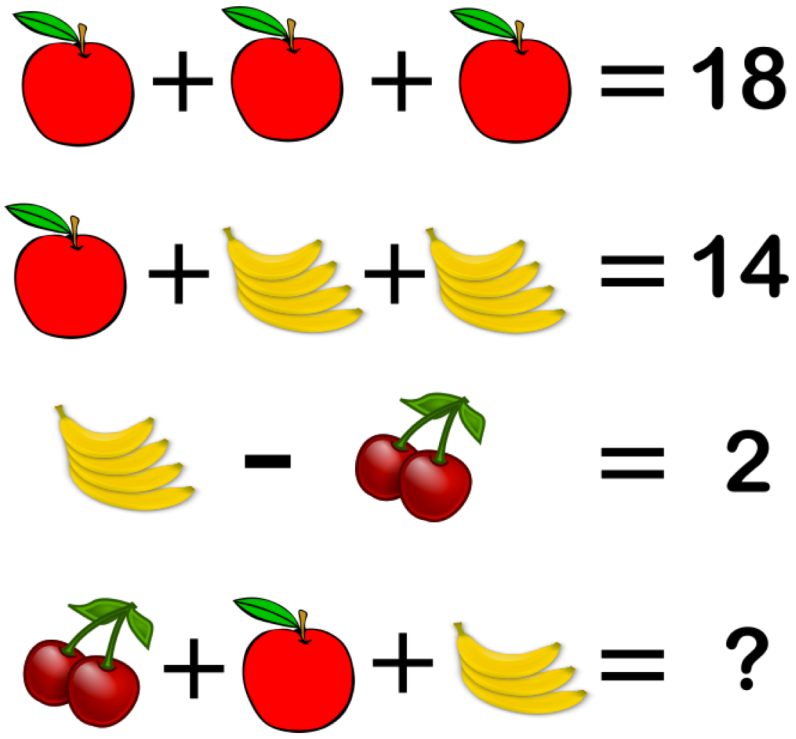
Maths

LO: to divide fractions by integers

Please note: this link only works on either pdf or the link above this powerpoint.
The video lesson is available here – Summer Term - Week 4 - lesson 4

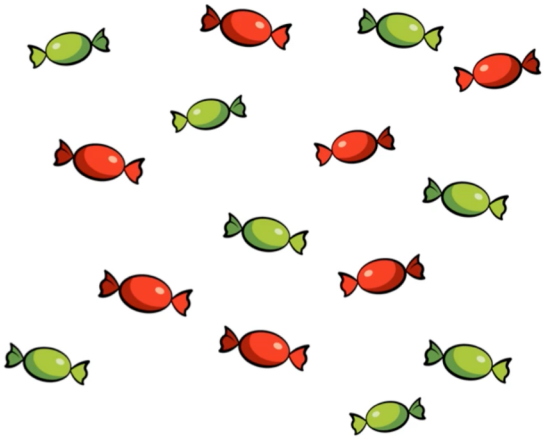


Brain Teaser



Example:

Part 1:

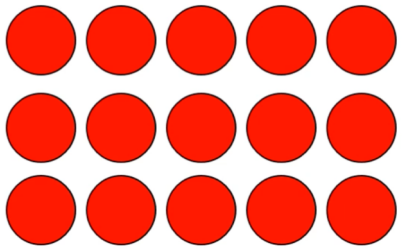


Tommy gives $\frac{1}{3}$ of his sweets to Eva.

How many sweets does Eva get?

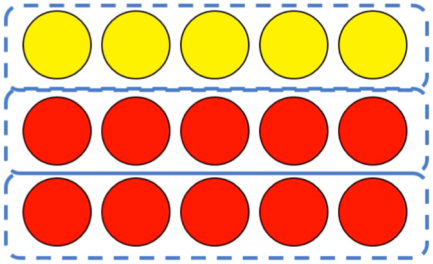
Part 2:

It may be easy to represent the sweets as counters because they are scattered.



Part 3:

I then split them into thirds and count the third that will be Eva's.



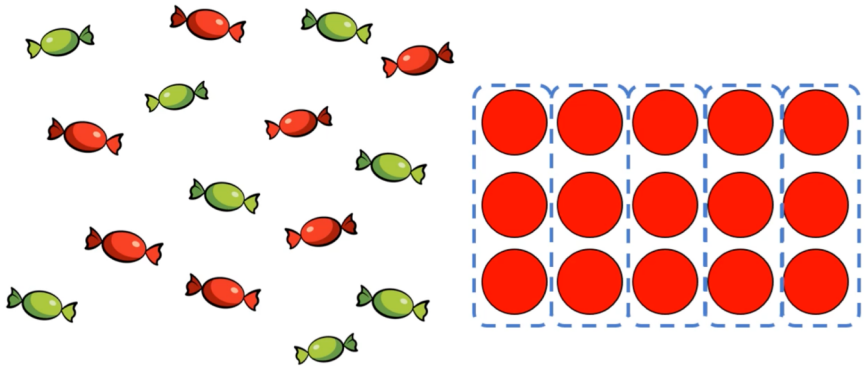
Part 4:

I can then see that:

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

$15 \div 3 = 5$

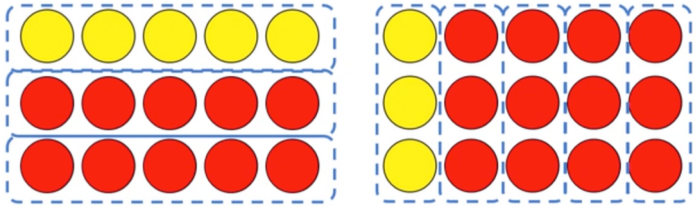
1:



Tommy gives $\frac{1}{5}$ of his sweets to Ron.

How many sweets does Ron get?

2:



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

15 ÷ 3 = 5

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

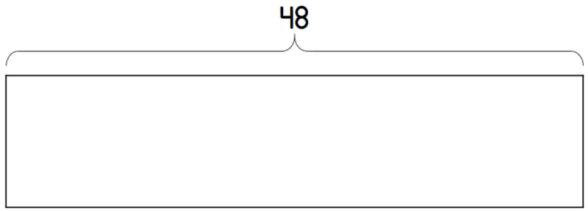
15 ÷ 5 = 3

What do you notice?

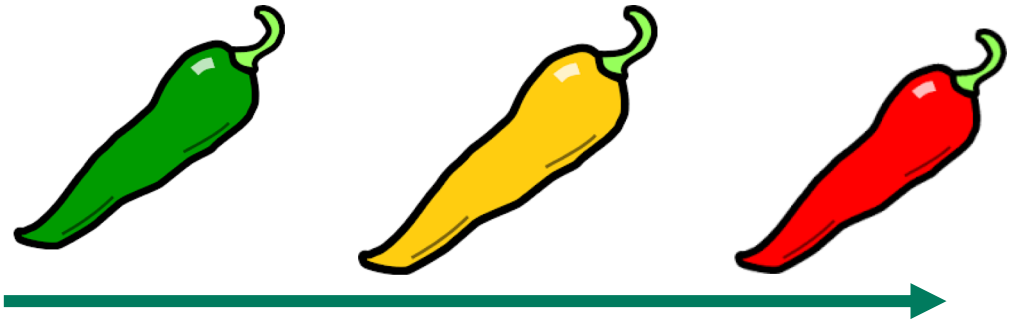
What's the same? What's different?

3:

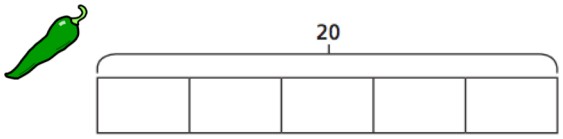
There are 48 children in a year group. $\frac{1}{4}$ of them are boys. How many boys are there?



The independent work continues on the next two slides. There are 6 questions and 1 extension (Espanol - seis preguntas y una extensión).



Fractions of an amount



a) Shade $\frac{1}{5}$ of the bar model.

b) What is $\frac{1}{5}$ of 20? ☐

2 Use your times tables knowledge to solve the calculations.

a) $\frac{1}{3}$ of 12 = ☐

b) $\frac{1}{4}$ of £20 = ☐

c) $\frac{1}{5}$ of 35 m = ☐

d) $\frac{1}{10}$ of 80 cm = ☐

e) $\frac{1}{12}$ of 60 = ☐

f) $\frac{1}{7}$ of 84 kg = ☐

Now use your answers to solve these calculations.

a) $\frac{2}{3}$ of 12 = ☐

b) $\frac{3}{4}$ of £20 = ☐

c) $\frac{3}{5}$ of 35 m = ☐

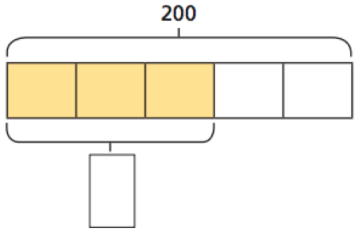
d) $\frac{7}{10}$ of 80 cm = ☐

e) $\frac{11}{12}$ of 60 = ☐

f) $\frac{6}{7}$ of 84 kg = ☐

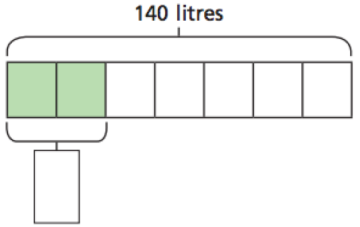
3 Calculate the missing values.

a)



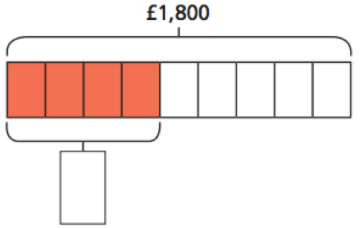
$\frac{3}{5}$ of 200 = ☐

b)



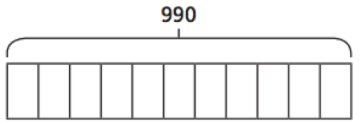
$\frac{2}{7}$ of 140 litres = ☐

c)



$\frac{4}{9}$ of £1,800 = ☐

d)



$\frac{3}{11}$ of 990 = ☐

4 **a)** In a school of 480 pupils, $\frac{2}{3}$ are juniors.

How many juniors are in the school?

b) A factory makes 256 cars.

$\frac{3}{8}$ are electric cars.

How many electric cars does the factory make?

c) Brett uses $\frac{2}{5}$ of his £180 savings to buy a train ticket.

How much of his savings does he have left?

5

Alex has 288 m of fence to paint.

She paints $\frac{3}{12}$ of the whole fence on Monday. She then paints $\frac{1}{2}$ of what is left on Tuesday.

How much fence does she have left to paint?

6 Fill in the missing numbers.

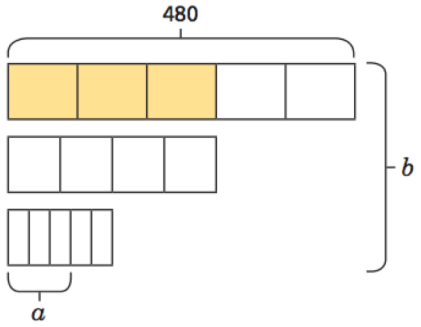
a) $\frac{\square}{10}$ of \$500 = \$150

b) $\frac{\square}{4}$ of 100 kg = 75 kg

c) 42 = $\frac{\square}{100}$ of 700

d) 450 = $\frac{\square}{20}$ of 3,000

Ext Find the values of a and b.

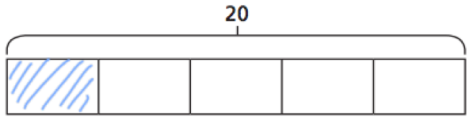


$a =$ $b =$

The next two slides contain the answers should you wish to check you work and reflect on what you understand.

Fractions of an amount

1



a) Shade $\frac{1}{5}$ of the bar model.

b) What is $\frac{1}{5}$ of 20? 4

2 Use your times tables knowledge to solve the calculations.

a) $\frac{1}{3}$ of 12 = 4

b) $\frac{1}{4}$ of £20 = £5

c) $\frac{1}{5}$ of 35 m = 7m

d) $\frac{1}{10}$ of 80 cm = 8 cm

e) $\frac{1}{12}$ of 60 = 5

f) $\frac{1}{7}$ of 84 kg = 12kg

Now use your answers to solve these calculations.

a) $\frac{2}{3}$ of 12 = 8

b) $\frac{3}{4}$ of £20 = £15

c) $\frac{3}{5}$ of 35 m = 21m

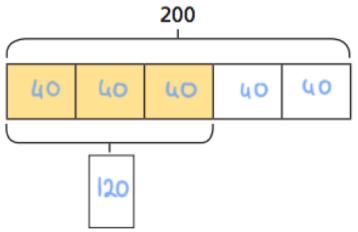
d) $\frac{7}{10}$ of 80 cm = 56cm

e) $\frac{11}{12}$ of 60 = 55

f) $\frac{6}{7}$ of 84 kg = 72kg

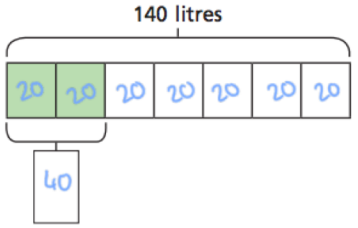
3 Calculate the missing values.

a)



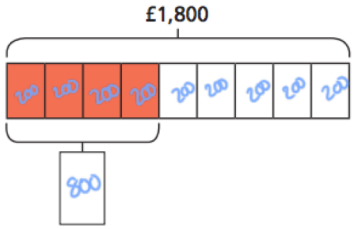
$\frac{3}{5}$ of 200 = 120

b)



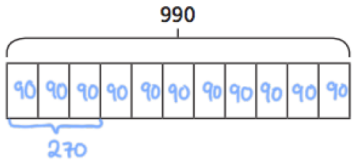
$\frac{2}{7}$ of 140 litres = 40 L

c)



$\frac{4}{9}$ of £1,800 = £800

d)



$\frac{3}{11}$ of 990 = 270

4 **a)** In a school of 480 pupils, $\frac{2}{3}$ are juniors.

How many juniors are in the school?

320

b) A factory makes 256 cars.

$\frac{3}{8}$ are electric cars.

How many electric cars does the factory make?

96

c) Brett uses $\frac{2}{5}$ of his £180 savings to buy a train ticket.

How much of his savings does he have left?

£108

5

Alex has 288 m of fence to paint.

She paints $\frac{3}{12}$ of the whole fence on Monday. She then paints $\frac{1}{2}$ of what is left on Tuesday.

How much fence does she have left to paint?

108m

6 Fill in the missing numbers.

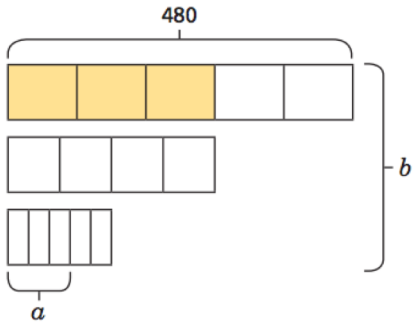
a) $\frac{3}{10}$ of \$500 = \$150

b) $\frac{3}{4}$ of 100 kg = 75 kg

c) $42 = \frac{6}{100}$ of 700

d) $450 = \frac{3}{20}$ of 3,000

Ext Find the values of a and b.



$a =$ 86·4 $b =$ 912