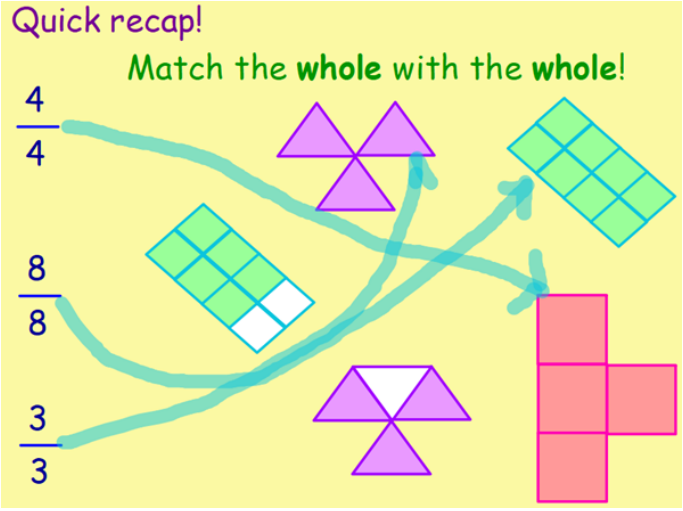
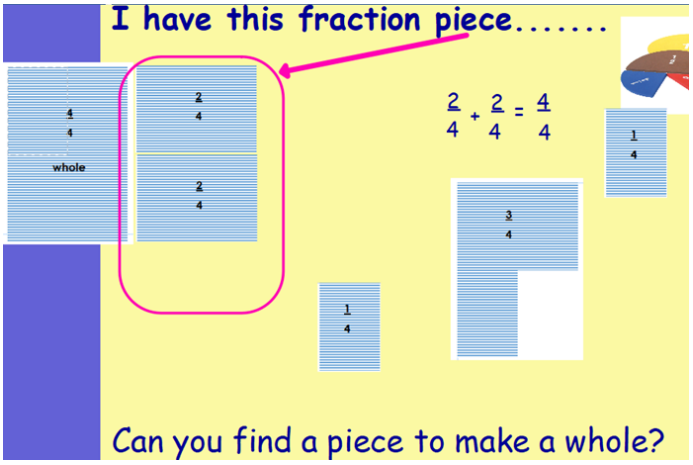
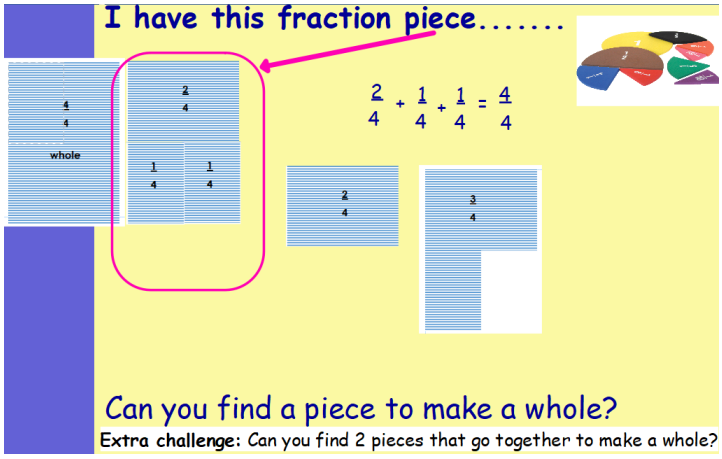
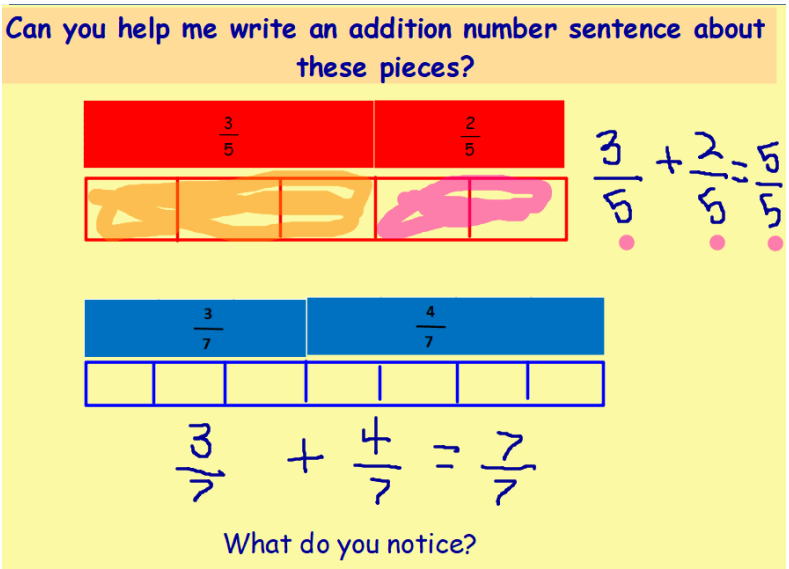
Answers Week 16

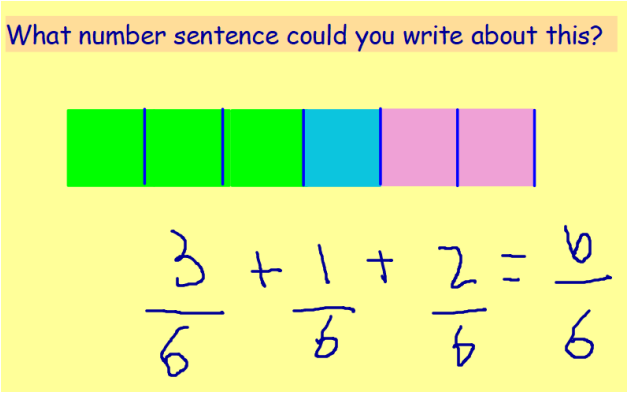
Lesson 1

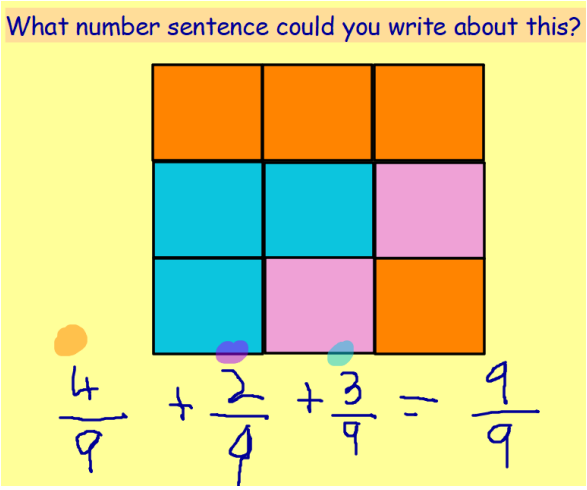




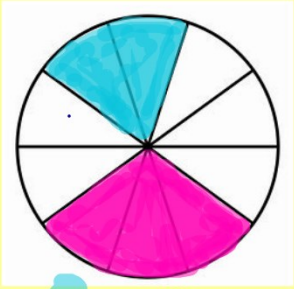






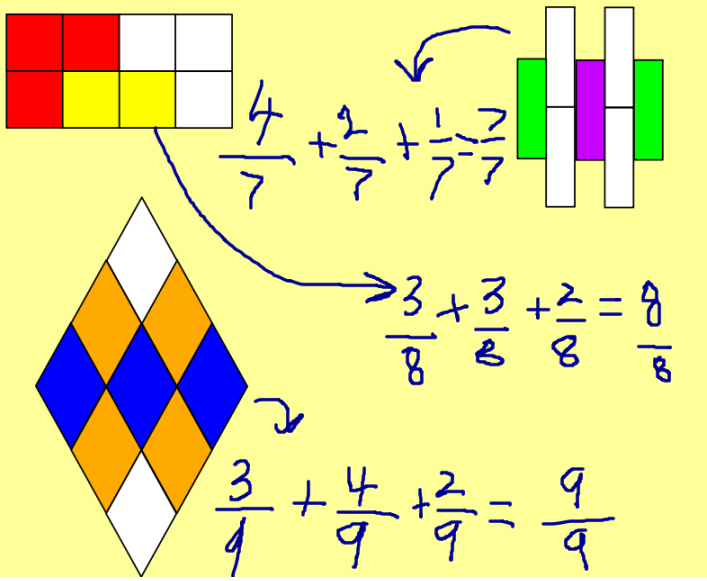


Kevin has added these fraction pieces together. Has he done it correctly? Why/why not?



$$\frac{5}{10} + \frac{2}{10} + \frac{3}{10} = \frac{10}{30} \quad \frac{10}{10}$$

Kevin is wrong because he has added the **denominators** too. The denominators stay the same when we add fractions. We add the numerators because it is the numerators which tell us how many equal parts there are.



More than one way to do it.

Magic Square: Answers

$\frac{5}{6}$

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

Complete this square so that each row and column add up to one whole.

Ready to go further?
This time, complete the square so that you only use each fraction **once** in any row or column.

Going further

Magic Square: Answers

$\frac{4}{6}$ $\frac{5}{6}$

$\frac{2}{6}$	$\frac{3}{6}$	$\frac{1}{6}$
$\frac{3}{6}$	$\frac{1}{6}$	$\frac{2}{6}$
$\frac{1}{6}$	$\frac{2}{6}$	$\frac{3}{6}$

Ready to go further?
This time, complete the square so that you only use each fraction **once** in any row or column.

Lesson 2

Add Fractions
A recap!

a) $\frac{4}{6} + \frac{2}{6} = \frac{\boxed{6}}{6}$

b) $\frac{4}{5} + \frac{\boxed{1}}{5} = \frac{5}{5}$

c) $\frac{\boxed{6}}{12} + \frac{6}{12} = \frac{12}{12}$

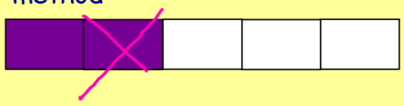
d) $\frac{6}{8} + \frac{2}{8} = \frac{\boxed{8}}{\boxed{8}}$

Let's try both methods to solve this.

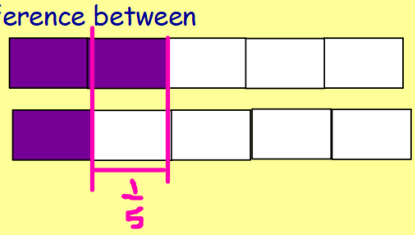
$\frac{2}{5} - \frac{1}{5} = \frac{1}{5}$

How can we use these bars?

Take away method



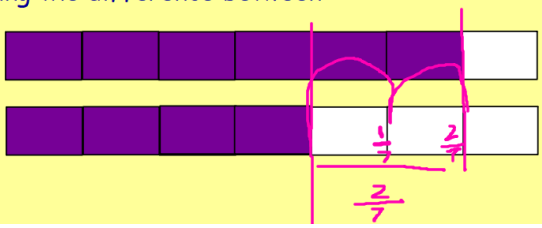
The difference between



$\frac{6}{7} - \frac{4}{7} = \frac{2}{7}$

Take away method

Finding the difference between



Use these cards to make your own subtraction fraction number sentence.

$\frac{4}{7} - \frac{3}{7} = \frac{1}{7}$

How will you choose which number to use as the denominator? Why?

or

Use these cards to make your own subtraction fraction number sentence.

$\frac{4}{7} - \frac{1}{7} = \frac{3}{7}$

How will you choose which number to use as the denominator? Why?

Eva is trying to solve

$1 - \frac{2}{5}$

but she says it's ~~not~~ possible.

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

$\frac{5}{5} - \frac{2}{5} = \frac{3}{5}$

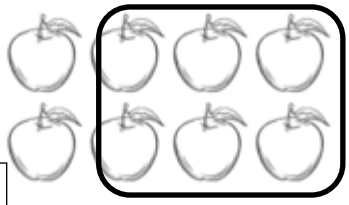
Lesson 3

True or False?

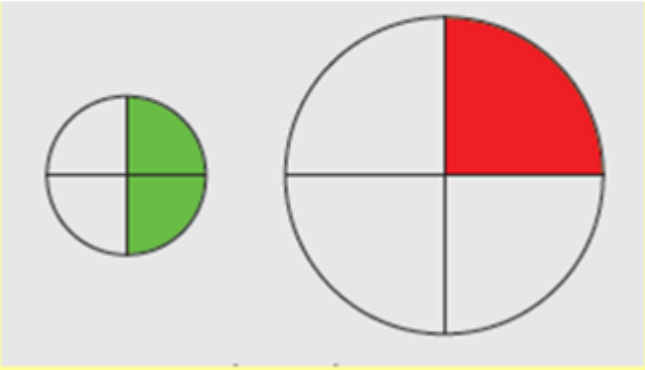
$\frac{1}{3}$ of the shape is shaded.

False. The shapes is divided into 4 equal parts, so 1/4 has been shaded.

Circle $\frac{3}{4}$ of the apples.



There are 8 apples in total. I know that 1/4 means dividing the total number of apples into 4 equal groups. This means dividing 8 by 4, which I know is 2. 1/4 of the apples is 2 apples. Therefore, 3/4 is 3x2=6.



Which is the larger fraction?

Why do you think that?
Explain your reasoning.

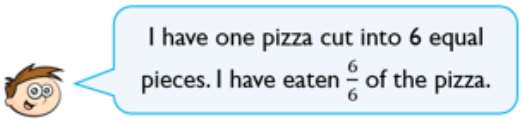
The green fraction is larger. Although it may look smaller in this image, it is the larger fraction.

The green fraction represents half—the whole has been divided into 4 equal parts, 2 of those parts have been coloured in. This is 2/4, which is equivalent to 1/2 (half).

The red fraction—this whole has also been divided into 4 equal parts but this time only one of those parts has been coloured in—1/4 (one quarter).

2/4 is greater than 1/4. I also know that half is more than a quarter.

Teddy says,



Does Teddy have any pizza left?
Explain your answer.

Teddy has no pizza left—he has eaten the whole thing!

He divided his pizza into 6 equal parts—each piece he eats is 1/6.

He ate 6/6—that is equivalent to the whole (1), so he ate the whole pizza—all six pieces that he cut it into.

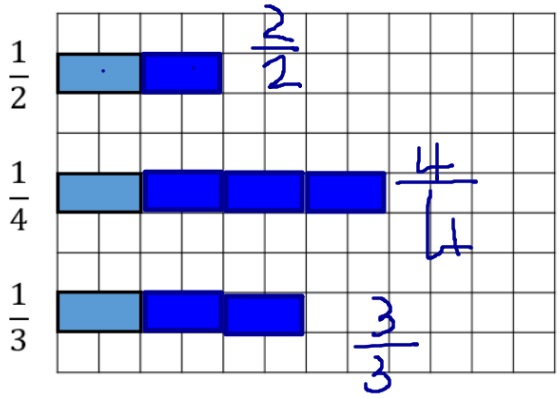
Sort the fractions into the table.

	Fractions equal to one whole	Fractions less than one whole
Unit fractions	×	$\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$
Non-unit fractions	$\frac{2}{2}$ $\frac{4}{4}$	

Are there any boxes in the table empty?
Why?

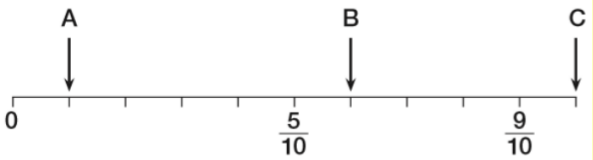
$\frac{3}{4}$ $\frac{1}{2}$ $\frac{3}{5}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{2}{2}$ $\frac{4}{4}$ $\frac{2}{5}$

Rosie is drawing bar models to represent a whole.
She has drawn a fraction of each of her bars.



Can you complete Rosie's bar models?

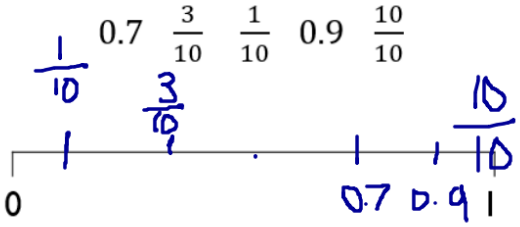
Complete the missing fractions.



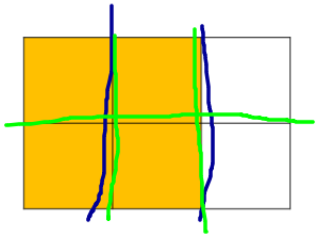
A = $\frac{1}{10}$ B = $\frac{6}{10}$ C = $\frac{10}{10}$ = 1

Place the decimals and fractions on the number line.

$0.7 \quad \frac{3}{10} \quad \frac{1}{10} \quad 0.9 \quad \frac{10}{10}$



Explain how the diagram shows both $\frac{2}{3}$ and $\frac{4}{6}$



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

The blue lines show the shape divided into 3 3qual parts—2 of those parts are coloured in—2/3.

The green lines show the shape divided into 6 equal parts—4 of those parts are coloured in—4/6.

We have proven that the diagram shows both fractions. We also know that 2/3 and 4/6 are equivalent fractions: 2/3 = 4/6.

Excuse the messy lines!

Dora has shaded a fraction.

$\rightarrow \frac{2}{3}$

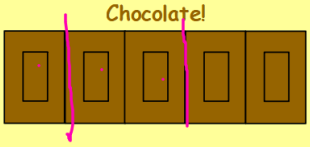
She says,

I am thinking of an equivalent fraction to the shaded fraction where the numerator is 9

Is this possible? NO
Explain why.

It is impossible.

The fraction shaded is 2/3. Dora says she is thinking of an equivalent fraction where the numerator is 9. You can not get a numerator of 9 as an equivalent fraction where the numerator is 2. 9 is not divisible by 2.



I will have 1 piece.

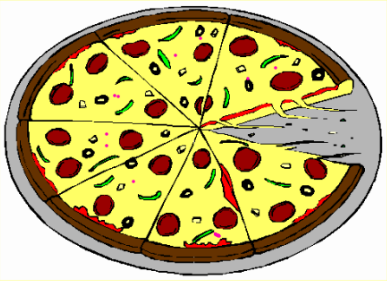
I will have 2 pieces.

How much did they eat altogther?

+

Can you write this as a fraction number sentence?

$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$



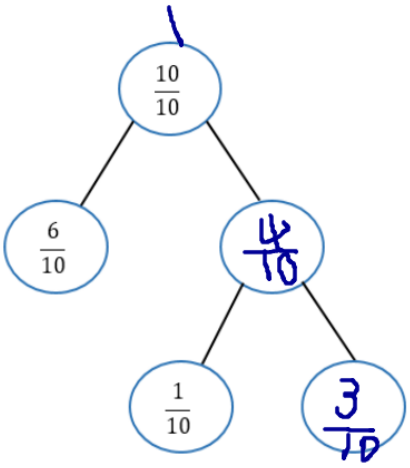
1 piece has been eaten already.

I am going to eat another 2 pieces.

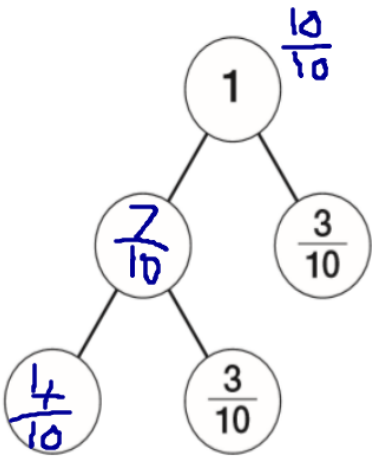
Write a fraction number sentence to show what is left.

$\frac{7}{8} - \frac{2}{8} = \frac{5}{8}$

Fill in the missing values.
Explain how you got your answers.



Complete the part-whole model.



There are red, purple and green sweets in a jar.

$\frac{2}{5}$ of the sweets are red. 24

$\frac{2}{5}$ of the sweets are green. 24

12 of the sweets are purple.

$\frac{5}{5}$ = Whole

24+24+12 = 60

How many sweets are there altogether?

$\frac{2}{5} + \frac{2}{5} + \frac{1}{5} = \frac{5}{5}$

$\frac{1}{5} = 12$ $\frac{2}{5} = 24$

60

12+12 = 24

We know that 2/5 of the sweets are red and 2/5 are green. This means that the whole is 5/5.

2/5 + 2/5 = 4/5 There is 1/5 left to make the whole, so the purple sweets must be 1/5 of the sweets.

We know there are 12 purple sweets, so we know that 1/5 of the sweets = 12.

To find out how many sweets are red, we must do: 1/5 x 2 or 1/5 +1/5, so that is 12x2 or 12+12, the answer is 24. 2/5 of the sweets is 24.

So there are 24 red sweets, 24 green sweets and 12 purple sweets.

24+24+12 = 60 sweets.