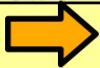


Lesson 1 -



Lesson 2 WALT Calculate fractions of a quantity



Lesson 3 WALT calculate fractions of an amount



Lesson 4 WALT assess our fraction knowledge



Lesson 5 WALT explore decimals up to two decimal points

LET'S LEARN

WEEK 10 - MATHS



Rapid Grasper

Shows where our GD can start.



Marking Priority

Best work to indepth mark

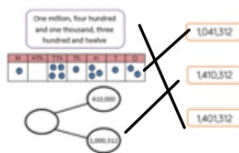
A reminder about presentation!

This is a page in your book

05/09/2018

WALT order and compare numbers

Match the representation to the numbers in digits.



(Any workings
would go here,
alongside my
question)

I linked the dots to the top number as it was the only one that had a 0 in the HTH column, which matched the image.

06/09/2018

WALT reason and problem solve

WALT convert between mixed numbers and improper fractions

We've learnt lots this week on fractions.
Let's take a minute to remember everything!



Pick a card.
Any card!

Greater than or less than?

$$2\frac{3}{8} \bigcirc 1\frac{5}{7}$$



Which is bigger?
one tenth
or one twelfth?



What is a fraction?





Draw a picture or diagram to show how you would solve the following problems...

I DO

27 children sit
at tables of 6,
filling all the tables
where possible.
Express how the
tables are filled
using a mixed number.

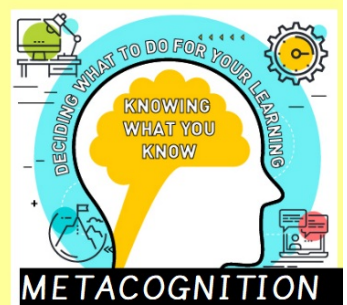
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Draw a picture or diagram to show how you would solve the following problems...

27 children sit at tables of 6, filling all the tables where possible.

Express how the tables are filled using a

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

Mr Quick has asked 2 pupils to sort 73 tennis balls into baskets of 10 balls, filling the baskets where possible.

Express how the baskets are filled using a mixed number.

$$7\frac{3}{10}$$

A pizza van sells pizza slices. Each slice is one quarter of a pizza. At the end of the day the pizza seller works out how many pizzas he has left. On one day he has 9 pieces. How many pizzas does he have left?

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



Draw a picture or diagram to show how you would solve the following problems...

YOU DO

27 children sit at tables of 6, filling all the tables where possible. Express how the tables are filled using a mixed number.

Mr Quick has asked 2 pupils to sort 73 tennis balls into baskets of 10 balls, filling the baskets where possible. Express how the baskets are filled using a mixed number.

A pizza van sells pizza slices. Each slice is one quarter of a pizza. At the end of the day the pizza seller works out how many pizzas he has left. On one day he has 9 pieces. How many pizzas does he have left?

WALT convert between mixed numbers and improper fractions

Write down any mixed number that is equivalent to the improper fraction.

$\frac{13}{3}$	$2\frac{2}{3}$	$4\frac{1}{3}$	$5\frac{1}{3}$	$4\frac{2}{3}$	$2\frac{2}{3}$
----------------	----------------	----------------	----------------	----------------	----------------

I DO

WE DO

YOU DO

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

EXTENSION: draw a diagram to prove it.

10HP for accurately drawn bar model or part/whole model

WALT convert between mixed numbers and improper fractions

ANSWERS

$\frac{13}{3}$	$2\frac{2}{3}$	$4\frac{1}{3}$	$5\frac{1}{3}$	$4\frac{2}{3}$	$2\frac{2}{3}$
$\frac{14}{4}$	$3\frac{2}{4}$	$4\frac{1}{2}$	$3\frac{1}{2}$	$4\frac{1}{4}$	$2\frac{1}{2}$
$\frac{16}{10}$	$1\frac{4}{10}$	$1\frac{2}{5}$	$1\frac{3}{5}$	$1\frac{6}{10}$	$1\frac{8}{10}$
$\frac{20}{6}$	$2\frac{2}{3}$	$3\frac{2}{6}$	$3\frac{2}{3}$	$2\frac{1}{3}$	$3\frac{1}{3}$
$\frac{19}{5}$	$4\frac{1}{5}$	$4\frac{2}{5}$	$3\frac{4}{5}$	$3\frac{3}{5}$	$5\frac{1}{5}$

WALT convert between mixed numbers and improper fractions

2) Write the following improper fractions as mixed numbers.

a) $\frac{22}{3} =$ _____

f) $\frac{14}{5} =$ _____

k) $\frac{23}{10} =$ _____

b) $\frac{5}{2} =$ _____

g) $\frac{16}{3} =$ _____

l) $\frac{19}{4} =$ _____

c) $\frac{21}{6} =$ _____

h) $\frac{17}{8} =$ _____

m) $\frac{19}{7} =$ _____

d) $\frac{34}{10} =$ _____

i) $\frac{22}{9} =$ _____

n) $\frac{21}{5} =$ _____

e) $\frac{31}{4} =$ _____

j) $\frac{27}{12} =$ _____

o) $\frac{30}{6} =$ _____

WALT convert between mixed numbers and improper fractions

a) $\frac{22}{3} = \underline{7\frac{1}{3}}$

b) $\frac{5}{2} = \underline{2\frac{1}{2}}$

c) $\frac{21}{6} = \underline{3\frac{1}{2} \text{ or } 3\frac{3}{6}}$

d) $\frac{34}{10} = \underline{3\frac{4}{10} \text{ or } 3\frac{2}{5}}$

e) $\frac{31}{4} = \underline{7\frac{3}{4}}$

f) $\frac{14}{5} = \underline{2\frac{4}{5}}$

g) $\frac{16}{3} = \underline{5\frac{1}{3}}$

h) $\frac{17}{8} = \underline{2\frac{1}{8}}$

i) $\frac{22}{9} = \underline{2\frac{4}{9}}$

j) $\frac{27}{12} = \underline{2\frac{3}{12}}$

k) $\frac{23}{10} = \underline{2\frac{3}{10}}$

l) $\frac{19}{4} = \underline{4\frac{3}{4}}$

m) $\frac{19}{7} = \underline{2\frac{5}{7}}$

n) $\frac{21}{5} = \underline{4\frac{1}{5}}$

o) $\frac{30}{6} = \underline{5}$

Lesson 5

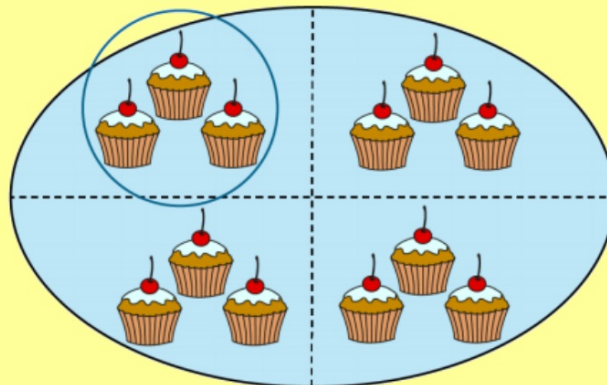
WALT : explore equivalent fractions

Two friends, Sahib and Jess, share 12 cakes.

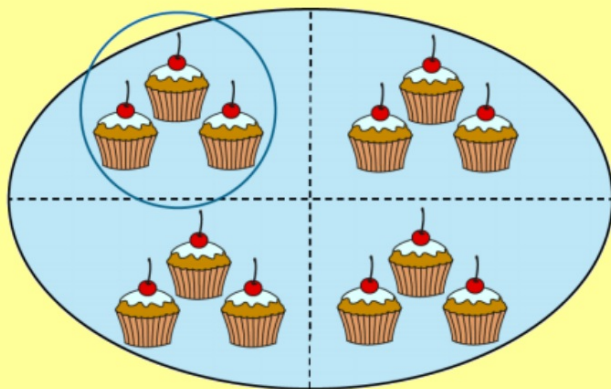
Jess eats three twelfths of the cake.

Sahib eats one quarter of the cakes.

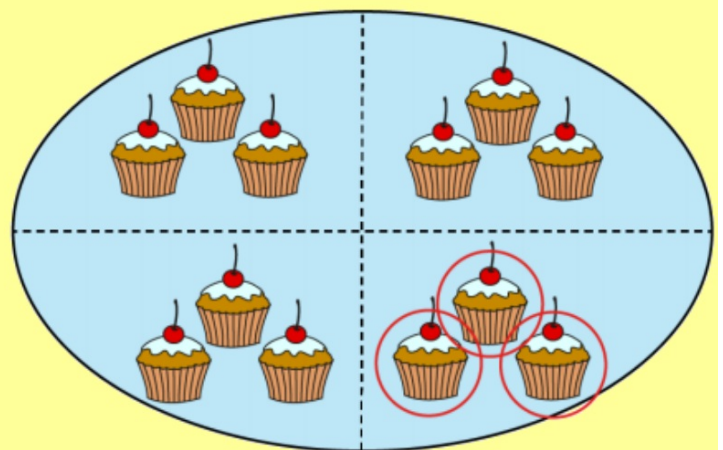
Sahib says that Jess ate more cakes than him.
Jess says that they ate the same amount.
Who is correct?



WALT : explore equivalent fractions



Jess eats three twelfths of the cake. $\frac{3}{12}$



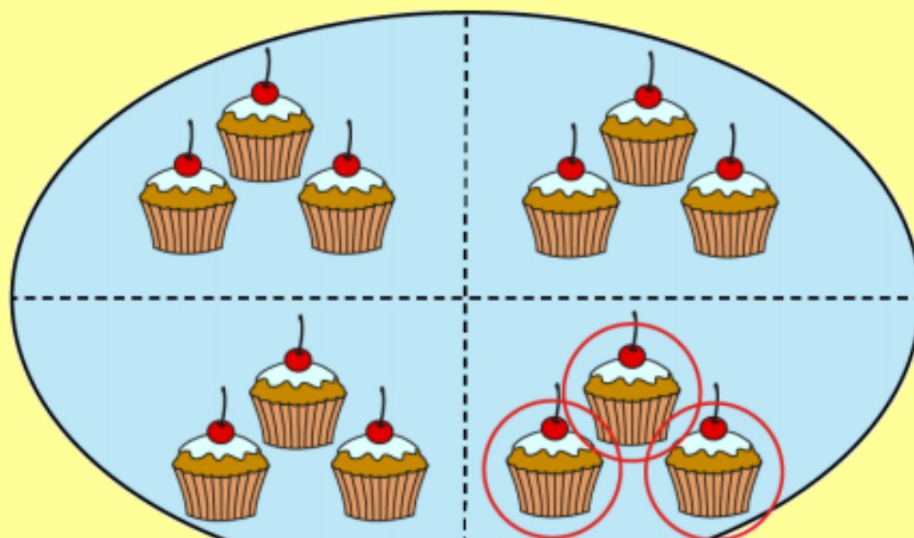
Sahib eats one quarter $\frac{1}{4}$ of the cakes.

$$\frac{3}{12}$$

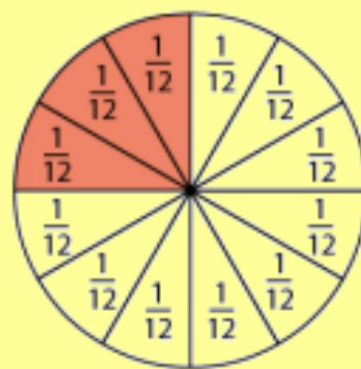
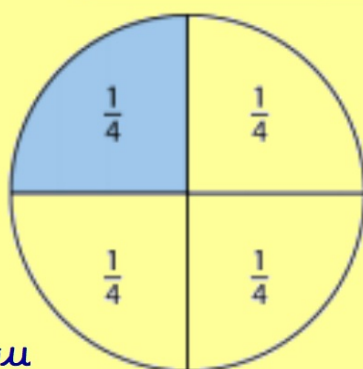
$$\frac{1}{4}$$

$<>=$

WALT : explore equivalent fractions



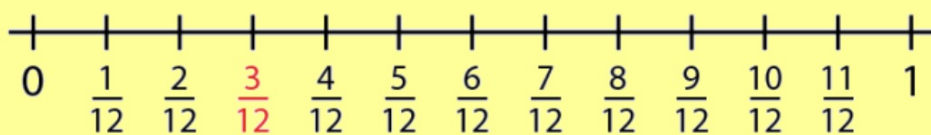
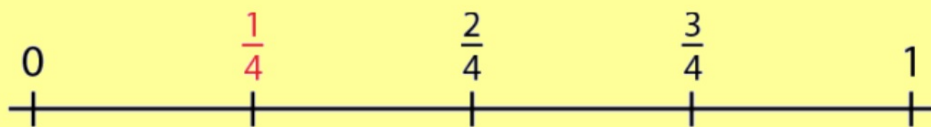
Sometimes fractions have the same value - these are called equivalent fractions.



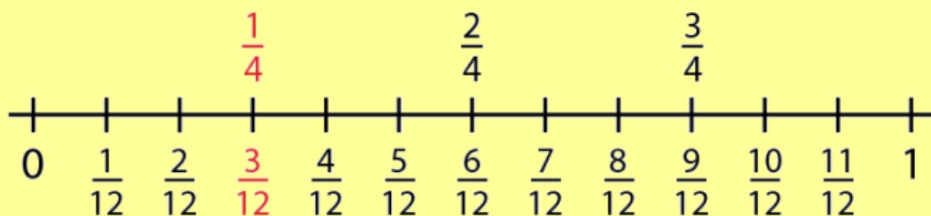
Add this term to your key words.

WALT : explore equivalent fractions

When using a number line with fractions, remember to count the spaces, not the lines!



smallest
fraction?



biggest
fraction?

We already know that one quarter is of equal value to three twelfths - what other equivalent fractions can you see?

LET'S LEARN

I DO

WE DO

YOU DO

Plenary

Lesson 2

WALT Calculate fractions of a quantity

Mega Challenge

Use < > or = to make the statement below correct

$$\frac{3}{4} \quad \frac{9}{12}$$

Order these fractions

$$\frac{2}{5}, \frac{5}{15}, \frac{3}{10} \quad \text{largest to smallest}$$

Fill in the missing fraction

$$\frac{1}{3} = \frac{2}{\quad} = \frac{3}{9}$$

Vocabulary

fractions

equal

part

whole

numerator

denominator

unitary fraction

WALT Calculate fractions of a quantity

Use < > or = to make the statement below correct

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

Order these fractions

$$\frac{2}{5}, \frac{5}{15}, \frac{3}{10} \quad \text{largest to smallest}$$
$$\frac{3}{10}, \frac{5}{15}, \frac{2}{5}$$

Fill in the missing fraction

$$\frac{1}{3} = \frac{2}{6} = \frac{3}{9}$$

If you correctly answered all of the mega challenge question, move on to the class questions.

If you did not answer all the mega challenge correctly, stay with me to learn more.

Class questions - see next slide!

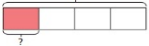
REASON AND PEER MARK FOR EVERY QUESTION!


WALT Calculate fractions of a quantity


Do it!
Reason it!
Peer Mark it!


Fractions of a quantity


1 Complete the number sentences.


a) $\frac{1}{4}$ of 20 =



d) $\frac{1}{2}$ of 40 =



b) $\frac{1}{5}$ of 20 =


e) $\frac{1}{8}$ of 40 =


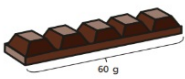
c) $\frac{1}{10}$ of 20 =


f) $\frac{1}{8}$ of 80 =


g) $\frac{1}{3}$ of 36 =


h) $\frac{1}{6}$ of 36 =


2 Filip has a chocolate bar with 5 equal pieces. The chocolate bar weighs 60 g.



a) What is the mass of one piece?
The mass of one piece is g.

b) Filip eats $\frac{3}{5}$ of the bar of chocolate. How many grams does Filip eat?

3 Complete the number sentences.

a) $\frac{1}{4}$ of 24 =
 $\frac{3}{4}$ of 24 =

d) $\frac{1}{8}$ of 32 =
 $\frac{5}{8}$ of 32 =

b) $\frac{1}{7}$ of 35 =
 $\frac{3}{7}$ of 35 =
 $\frac{5}{7}$ of 35 =

e) $\frac{5}{8}$ of 64 =
 $\frac{7}{8}$ of 64 =
 $\frac{10}{8}$ of 64 =

4 Match the calculations to the answers.

$\frac{2}{3}$ of 18	18
$\frac{5}{6}$ of 18	15
$\frac{9}{10}$ of 20	16
$\frac{4}{5}$ of 20	12

5 a) Write each calculation in the correct circle.

$\frac{1}{2}$ of 16 $\frac{1}{4}$ of 24 $\frac{2}{3}$ of 9 $\frac{3}{2}$ of 4 $\frac{1}{6}$ of 48

= 6 = 8

b) Write one more calculation in each circle.

6 Write <, > or = to compare the calculations.

a) $\frac{2}{7}$ of 21 $\frac{2}{3}$ of 21

b) $\frac{3}{5}$ of 40 $\frac{2}{3}$ of 36

c) $\frac{6}{8}$ of 40 $\frac{3}{4}$ of 40

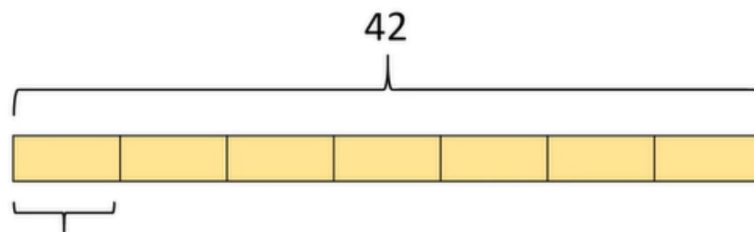
d) $\frac{6}{10}$ of 50 $\frac{3}{10}$ of 100

Use the reasoning sheet to help you if you need it.

WALT Calculate fractions of a quantity



$$\frac{1}{7} \text{ of } 42 =$$

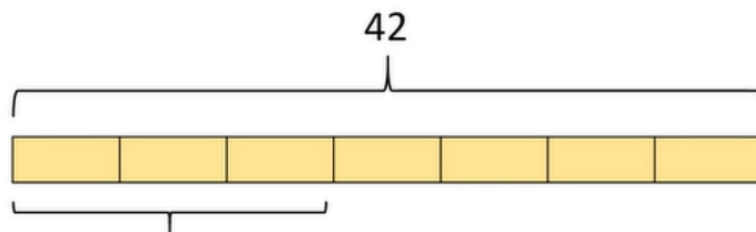


I DO

WALT Calculate fractions of a quantity

WE DO

$$\frac{3}{7} \text{ of } 42 =$$



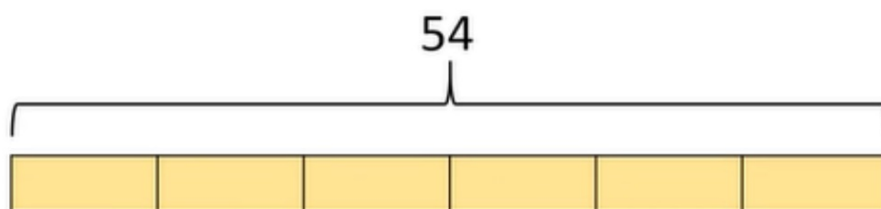
$$42 \div 7$$

WALT Calculate fractions of a quantity

YOU DO

$$\frac{1}{6} \text{ of } 54 =$$

Have a think




$$\frac{5}{6} \text{ of } 54 =$$

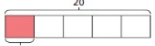
WALT Calculate fractions of a quantity

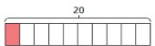
Do it!
Reason it!
Peer Mark it!

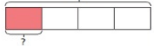
Fractions of a quantity


1 Complete the number sentences.

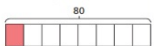
a) $\frac{1}{4}$ of 20 =



b) $\frac{1}{5}$ of 20 =


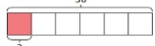
c) $\frac{1}{10}$ of 20 =


d) $\frac{1}{4}$ of 40 =


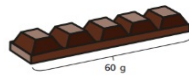
e) $\frac{1}{8}$ of 40 =


f) $\frac{1}{8}$ of 80 =


g) $\frac{1}{3}$ of 36 =



h) $\frac{1}{6}$ of 36 =



- 2 Filip has a chocolate bar with 5 equal pieces.
The chocolate bar weighs 60 g.





- a) What is the mass of one piece?
The mass of one piece is g.
- b) Filip eats $\frac{3}{5}$ of the bar of chocolate.
How many grams do


3 Complete the number sentences.


a) $\frac{1}{4}$ of 24 =



b) $\frac{1}{7}$ of 35 =



c) $\frac{1}{8}$ of 32 =


d) $\frac{5}{8}$ of 64 =


e) $\frac{3}{4}$ of 24 =


f) $\frac{7}{8}$ of 64 =


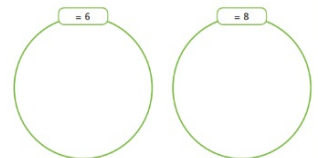
g) $\frac{5}{7}$ of 35 =


h) $\frac{10}{8}$ of 64 =


- 4 Match the calculations to the answers.

$\frac{2}{3}$ of 18	18
$\frac{5}{6}$ of 18	15
$\frac{9}{10}$ of 20	16
$\frac{4}{5}$ of 20	12

- 5 a) Write each calculation in the correct circle.
- $\frac{1}{2}$ of 16 $\frac{1}{4}$ of 24 $\frac{2}{3}$ of 9 $\frac{3}{2}$ of 4 $\frac{1}{6}$ of 48



- b) Write one more calculation in each circle.

- 6 Write <, > or = to compare the calculations.

- a) $\frac{2}{7}$ of 21 $\frac{2}{3}$ of 21
- b) $\frac{3}{5}$ of 40 $\frac{2}{5}$ of 36
- c) $\frac{6}{8}$ of 40 $\frac{3}{4}$ of 40
- d) $\frac{6}{10}$ of 50 $\frac{3}{10}$ of 100

Use the reasoning sheet to help you if you need it.

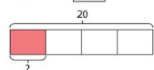
Answers

Fractions of a quantity

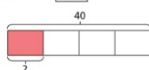
White
Rose
Maths

1 Complete the number sentences.

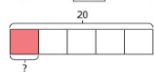
a) $\frac{1}{4}$ of 20 = **5**



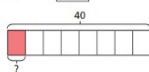
d) $\frac{1}{4}$ of 40 = **10**



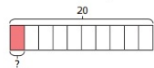
b) $\frac{1}{5}$ of 20 = **4**



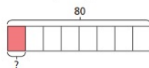
e) $\frac{1}{8}$ of 40 = **5**



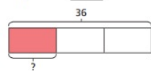
c) $\frac{1}{10}$ of 20 = **2**



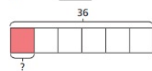
f) $\frac{1}{8}$ of 80 = **10**



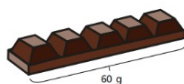
g) $\frac{1}{3}$ of 36 = **12**



h) $\frac{1}{6}$ of 36 = **6**



2 Filip has a chocolate bar with 5 equal pieces.
The chocolate bar weighs 60 g.



3 Complete the number sentences.

a) $\frac{1}{4}$ of 24 = **6**

$\frac{3}{4}$ of 24 = **18**

c) $\frac{1}{8}$ of 32 = **4**

$\frac{5}{8}$ of 32 = **20**

b) $\frac{1}{7}$ of 35 = **5**

$\frac{3}{7}$ of 35 = **15**

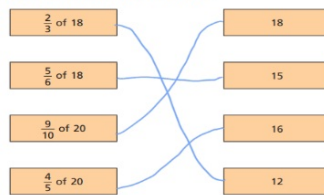
$\frac{5}{7}$ of 35 = **25**

d) $\frac{5}{8}$ of 64 = **40**

$\frac{7}{8}$ of 64 = **56**

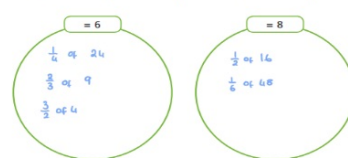
$\frac{10}{8}$ of 64 = **80**

4 Match the calculations to the answers.



5 a) Write each calculation in the correct circle.

$\frac{1}{2}$ of 16 $\frac{1}{4}$ of 24 $\frac{2}{3}$ of 9 $\frac{3}{2}$ of 4 $\frac{1}{6}$ of 48



b) Write one more calculation in each circle.

6 Write <, > or = to compare the calculations.

a) $\frac{2}{3}$ of 21 **<** $\frac{2}{3}$ of 21

b) $\frac{3}{5}$ of 40 **=** $\frac{2}{3}$ of 36

c) $\frac{6}{8}$ of 40 **=** $\frac{3}{4}$ of 40

d) $\frac{6}{10}$ of 50 **=** $\frac{3}{10}$ of 100

WALT Calculate fractions of a quantity

Plenary

True or false?

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



Lesson 3

WALT calculate fractions of an amount

Mega Challenge

Convert these from mixed numbers to improper fractions:

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

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

A pizza has 8 slices. At a party, 2 full pizzas and 3 slices are left over.

Write this as an improper fraction.

Vocabulary

fractions

equal

part

whole

numerator

denominator

unitary fraction

WALT calculate fractions of an amount

Convert these from mixed numbers to improper fractions:

$$3\frac{2}{5} = \frac{17}{5}$$

$$2\frac{1}{6} = \frac{13}{6}$$

A pizza has 8 slices. At a party, 2 full pizzas and 3 slices are left over.

Write this as an improper fraction.

$$\frac{19}{8}$$

If you correctly answered all of the mega challenge question, move on to the class questions.

If you did not answer all the mega challenge correctly, stay with me to learn more.

Class questions - see next slide!

REASON AND PEER MARK FOR EVERY QUESTION!

WALT calculate fractions of an amount

Do it!
Reason it!
Peer Mark it!

Fractions of an amount

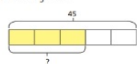
1 Annie and Mo are finding fractions of amounts.

a) Annie is trying to find $\frac{1}{5}$ of 45.
She draws this bar model.



How does the bar model represent the calculation?
What is $\frac{1}{5}$ of 45?

b) Mo is trying to find $\frac{2}{5}$ of 45.



How does the bar model represent the calculation?
What is $\frac{2}{5}$ of 45?

c) What is the same and what is different about Mo and Annie's questions?

2 Complete the calculations.

a) $\frac{1}{3}$ of 27 = b) $\frac{1}{3}$ of 72 = c) $\frac{1}{3}$ of 90 =

$\frac{2}{3}$ of 27 = $\frac{1}{6}$ of 72 = $\frac{2}{6}$ of 90 =

$\frac{3}{3}$ of 27 = $\frac{1}{12}$ of 72 = $\frac{3}{9}$ of 90 =

What patterns do you notice?

3 Match the calculations to the correct amounts.

$\frac{1}{8}$ of 48	32
$\frac{2}{3}$ of 48	40

4 Write <, > or = to compare the calculations.

a) $\frac{5}{7}$ of 56 $\frac{5}{8}$ of 56 c) $\frac{2}{3}$ of 63 $\frac{5}{8}$ of 64
b) $\frac{4}{7}$ of 56 $\frac{5}{8}$ of 56 d) $\frac{7}{10}$ of 350 $\frac{5}{7}$ of 350

5 165 children and adults go on a school trip.
Two thirds of the people are children.

a) How many adults are on the school trip?

b) $\frac{3}{5}$ of the children are boys.

How many boys are on the school trip?

c) $\frac{7}{10}$ of the children have an apple for lunch.

How many children do **not** have an apple for lunch?

6 Tick the odd one out.

$\frac{3}{4}$ of 80	$\frac{3}{8}$ of 160	$\frac{2}{3}$ of 90	$\frac{3}{4}$ of 100
---------------------	----------------------	---------------------	----------------------

Explain your choice.

7 320 people were asked about their favourite flavour of ice cream.
Here is a pictogram showing the results.

vanilla	    
strawberry	    
chocolate	  
mint choc chip	      

a) How many people chose mint choc chip?

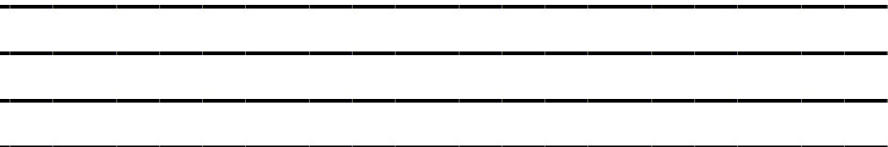
b) How many more people chose vanilla than chocolate?



The
REASONING

Spot and explain the mistake

$$\frac{13}{5} = 3\frac{3}{5}$$



WALT calculate fractions of an amount



$$\frac{6}{11} \text{ of } 231 \quad \bigcirc \quad \frac{10}{21} \text{ of } 231$$

6 is more than half of 11

10 is less than half of 21

$$\frac{6}{11} > \frac{1}{2}$$

$$\frac{10}{21} < \frac{1}{2}$$

$$\frac{3}{4} \text{ of } 308 \quad \bigcirc \quad \frac{6}{7} \text{ of } 308$$

I DO

WALT calculate fractions of an amount

$$\frac{1}{4} \text{ of } 648 \quad \bigcirc \quad \frac{7}{32} \text{ of } 648$$

$$\frac{4}{9} \text{ of } 90 \quad \bigcirc \quad \frac{8}{9} \text{ of } 45$$

WE DO

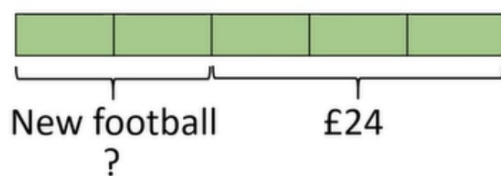
WALT calculate fractions of an amount

Ron has some money.

He spends $\frac{2}{5}$ of the money on a new football.

He has £24 left.

What is the cost of the football?



YOU DO

WALT calculate fractions of an amount

Do it!
Reason it!
Peer Mark it!

Fractions of an amount

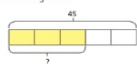
1 Annie and Mo are finding fractions of amounts.

a) Annie is trying to find $\frac{1}{5}$ of 45.
She draws this bar model.



How does the bar model represent the calculation?
What is $\frac{1}{5}$ of 45?

b) Mo is trying to find $\frac{2}{5}$ of 45.



How does the bar model represent the calculation?
What is $\frac{2}{5}$ of 45?

c) What is the same and what is different about Mo and Annie's questions?

2 Complete the calculations.

a) $\frac{1}{3}$ of 27 = b) $\frac{1}{3}$ of 72 = c) $\frac{1}{3}$ of 90 =

$\frac{2}{3}$ of 27 = $\frac{1}{6}$ of 72 = $\frac{2}{6}$ of 90 =

$\frac{3}{3}$ of 27 = $\frac{1}{12}$ of 72 = $\frac{3}{9}$ of 90 =

What patterns do you notice?

3 Match the calculations to the correct amounts.

$\frac{1}{8}$ of 48	32
$\frac{2}{3}$ of 48	40

4 Write <, > or = to compare the calculations.

a) $\frac{5}{7}$ of 56 $\frac{5}{8}$ of 56 c) $\frac{2}{3}$ of 63 $\frac{5}{8}$ of 64
b) $\frac{4}{7}$ of 56 $\frac{5}{8}$ of 56 d) $\frac{7}{10}$ of 350 $\frac{5}{7}$ of 350

5 165 children and adults go on a school trip.
Two thirds of the people are children.

a) How many adults are on the school trip?

b) $\frac{3}{5}$ of the children are boys.

How many boys are on the school trip?

c) $\frac{7}{10}$ of the children have an apple for lunch.

How many children do **not** have an apple for lunch?

6 Tick the odd one out.

$\frac{3}{4}$ of 80	$\frac{3}{8}$ of 160	$\frac{2}{3}$ of 90	$\frac{3}{4}$ of 100
---------------------	----------------------	---------------------	----------------------

Explain your choice.

7 320 people were asked about their favourite flavour of ice cream.
Here is a pictogram showing the results.

vanilla	    
strawberry	    
chocolate	  
mint choc chip	      

a) How many people chose mint choc chip?

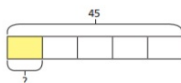
b) How many more people chose vanilla than chocolate?

Answers

Fractions of an amount

- 1 Annie and Mo are finding fractions of amounts.

- a) Annie is trying to find $\frac{1}{5}$ of 45.
She draws this bar model.

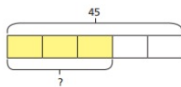


How does the bar model represent the calculation?

What is $\frac{1}{5}$ of 45?

9

- b) Mo is trying to find $\frac{3}{5}$ of 45



How does the bar model represent the calculation?

What is $\frac{3}{5}$ of 45?

27

- c) What is the same and what is different about Mo and Annie's questions?

- 2 Complete the calculations.

a) $\frac{1}{3}$ of 27 = 9 b) $\frac{1}{3}$ of 72 = 24 c) $\frac{1}{3}$ of 90 = 30

$\frac{2}{3}$ of 27 = 18 $\frac{1}{6}$ of 72 = 12 $\frac{2}{6}$ of 90 = 30

$\frac{3}{3}$ of 27 = 27 $\frac{1}{12}$ of 72 = 6 $\frac{3}{9}$ of 90 = 30

- 4 Write <, > or = to compare the calculations.

a) $\frac{5}{7}$ of 56 > $\frac{5}{8}$ of 56 c) $\frac{2}{3}$ of 63 > $\frac{5}{8}$ of 64
b) $\frac{4}{7}$ of 56 < $\frac{5}{8}$ of 56 d) $\frac{7}{10}$ of 350 < $\frac{5}{7}$ of 350

- 5 165 children and adults go on a school trip.
Two thirds of the people are children.

- a) How many adults are on the school trip?

55

- b) $\frac{3}{5}$ of the children are boys.

How many boys are on the school trip?

66

- c) $\frac{7}{10}$ of the children have an apple for lunch.
How many children do not have an apple for lunch?

33


















- 6 Tick the odd one out.

$\frac{3}{4}$ of 80 $\frac{3}{8}$ of 160 $\frac{2}{3}$ of 90 $\frac{3}{4}$ of 100

Explain your choice.

Vanilla answers

- 7 320 people were asked about their favourite flavour of ice cream.
Here is a pictogram showing the results.

vanilla	   
strawberry	   
chocolate	  
mint choc chip	     

- a) How many people chose mint choc chip?

112

- b) How many more people chose vanilla than chocolate?

32

WALT calculate fractions of an amount

Plenary

$$\frac{2}{3} \text{ of } 60 = \frac{1}{3} \text{ of } 120$$






Lesson 4

WALT assess our fraction knowledge

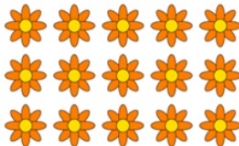
We are
going to
do the fractions
quiz to see where
we have improved

Fractions


1 $3F-1$
1. What fraction of each diagram is shaded?

2
Circle $\frac{4}{5}$ of the flowers.

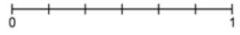


3
Colour $\frac{1}{3}$ of the line.

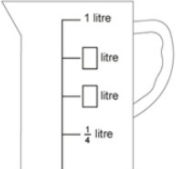


4 $3F-2$
Find:
a. $\frac{1}{5}$ of 35
b. $\frac{1}{10}$ of 40
c. $\frac{1}{8}$ of 24

5 $3F-3$
Label the points on this number line.



6
Add the missing labels to the measuring jug.

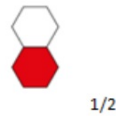


Answers

Fractions

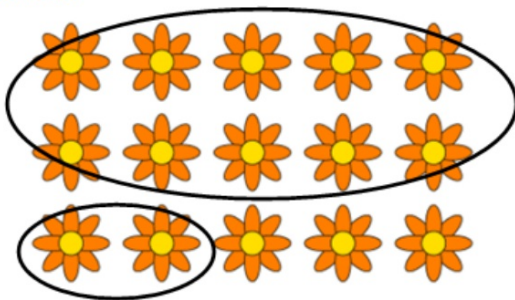
1 3F-1

1. What fraction of each diagram is shaded?



2

Circle $\frac{4}{5}$ of the flowers.



3

Colour $\frac{1}{3}$ of the line.



4 3F-2

Find:

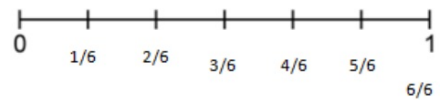
a. $\frac{1}{5}$ of 35 7

b. $\frac{1}{10}$ of 40 4

c. $\frac{1}{8}$ of 24 3

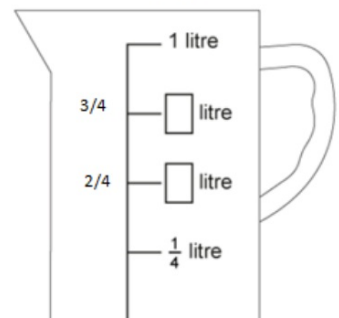
5 3F-3

Label the points on this number line.



6

Add the missing labels to the measuring jug.



7

3F- 4

Diego writes:

$$\frac{3}{12} + \frac{5}{12} = \frac{8}{12}$$

Mark writes:

$$\frac{3}{12} + \frac{5}{12} = \frac{8}{24}$$

Who is correct? Explain the mistake that has been made.

Diego is correct. Mistake: Mark has added the denominators

8

4F- 1

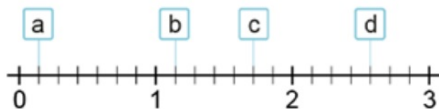
What are the values of a, b, c and d?

$$A = 1/7$$

$$D = 2 \frac{4}{7}$$

$$B = 1 \frac{1}{7}$$

$$C = 1 \frac{5}{7}$$



9

4F- 2

Which of these fractions are equivalent to a whole number? Explain how you know.

$$\frac{48}{6}$$

$$\frac{48}{7}$$

$$\frac{48}{8}$$

$$\frac{48}{9}$$

$$\frac{48}{10}$$

10

4F- 2

Fill in the missing numbers.

$$2 \frac{1}{7} \quad 2 \frac{4}{7} \quad 3 \quad 3 \frac{3}{7} \quad 3 \frac{6}{7} \quad 4 \frac{2}{7}$$

11

5F- 1

Find:

$$\frac{3}{8} \text{ of } 32$$

12

$$\frac{2}{9} \text{ of } 45$$

10

$$\frac{3}{5} \text{ of } 30$$

18

12

5F- 2

Fill in the missing digits.

$$\frac{4}{8} = \frac{12}{\square}$$

24

$$\frac{3}{5} = \frac{\square}{40}$$

24

$$\frac{3}{\square} = \frac{21}{63}$$

9

$$\frac{20}{30} = \frac{\square}{15}$$

10

WALT assess our fraction knowledge

You have now marked your fractions quiz

You need to choose two areas to work on based on this quiz for the lesson.



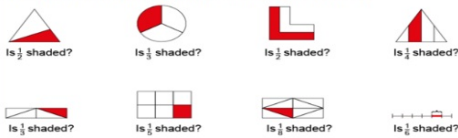
You need to look at the codes next to the question to choose the topics

3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts

1. What fraction of each diagram is shaded?



2. Does each diagram show the given fraction? Explain your answers.



3. What fraction of each diagram is shaded/highlighted?



4. Tick or cross each diagram to show whether $\frac{3}{5}$ is shaded. Explain your answers.



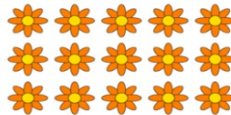
5. a. Shade $\frac{1}{10}$ of this set.



b. Shade $\frac{3}{4}$ of this shape.



c. Circle $\frac{4}{5}$ of the flowers.



d. Colour $\frac{1}{3}$ of the line.



3F-2 Find unit fractions of quantities using know division facts (multiplication tables fluency).

1. Rohan saved £32. He spends $\frac{1}{4}$ of his money on a toy. How much does he spend?

2. Find:

a. $\frac{1}{5}$ of 35

b. $\frac{1}{10}$ of 40

c. $\frac{1}{8}$ of 24

3. The school caretaker buys 50 litres of paint. She uses $\frac{1}{5}$ of it to paint the year 3 classroom. How many litres of paint is this?

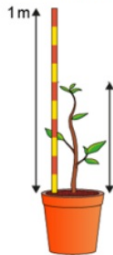
4. There are 16 apples in a fruit bowl. Some children eat $\frac{1}{4}$ of the apples. How many are left?

3F-3 Reason about the location of any fraction within 1 in the linear number system

1. Label the points on this number line.



2. How tall is this plant? Give your answer as a fraction of a metre.



The pl1. Complete the calculations.

$$\frac{5}{9} + \frac{1}{9} = \frac{\square}{\square}$$

$$\frac{5}{12} + \frac{3}{12} = \frac{\square}{\square}$$

$$\frac{5}{14} + \frac{7}{14} = \frac{\square}{\square}$$

$$\frac{6}{8} - \frac{2}{8} = \frac{\square}{\square}$$

$$\frac{9}{11} - \frac{6}{11} = \frac{\square}{\square}$$

$$\frac{9}{10} - 0 = \frac{\square}{\square}$$

3. a. Which is larger, $\frac{6}{8}$ or $\frac{3}{8}$? Explain your answer.

- b. Which is larger, $\frac{1}{4}$ or $\frac{1}{3}$? Explain your answer.

2. Diego writes:

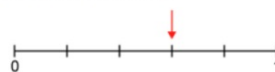
$$\frac{3}{12} + \frac{5}{12} = \frac{8}{12}$$

Mark writes:

$$\frac{3}{12} + \frac{5}{12} = \frac{8}{24}$$

Who is correct? Explain the mistake that has been made.

4. Gemma and Kasper look at this number line.



Gemma says the arrow is pointing to the number $\frac{3}{4}$.

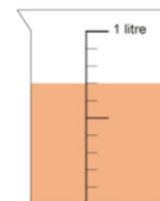
Kasper says the arrow is pointing to the number $\frac{3}{5}$.

3F-4 Add and subtract fractions with the same denominator, within 1

3. Decide whether each calculation is correct or not. Explain your answers.

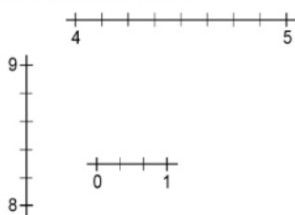
	Correct (✓) or incorrect (✗)?	Explanation
$\frac{7}{12} - \frac{2}{12} = \frac{5}{12}$		
$\frac{4}{7} - \frac{2}{7} = \frac{2}{0}$		
$\frac{8}{10} - \frac{2}{10} - \frac{1}{10} = \frac{3}{10}$		
$\frac{7}{8} - \frac{7}{8} = 0$		
$\frac{5}{8} - \frac{2}{8} - \frac{2}{8} = \frac{1}{8}$		

4. Sofia had a jug containing $\frac{7}{10}$ of a litre of juice. She drank $\frac{4}{10}$ of a litre. How much does she have left?



4F-1 Reason about the location of mixed numbers in the linear number system.

Add labels to each mark on the number lines.



4. How much water is in the beaker? Write your answer as a mixed number.



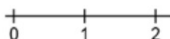
4F-2 Convert between mixed numbers and improper fractions.

What are the values of a, b, c and d?



Estimate the position of the following numbers.

$$2\frac{2}{9} \quad \frac{2}{3}$$



1. Which of these fractions are equivalent to a whole number? Explain how you know.

$$\frac{48}{6} \quad \frac{48}{7} \quad \frac{48}{8} \quad \frac{48}{9} \quad \frac{48}{10}$$

2. Express the following mixed numbers as improper fractions.

$$4\frac{1}{8} \quad 6\frac{4}{9} \quad 3\frac{11}{12} \quad 8\frac{2}{3}$$

3. Express the following improper fractions as mixed numbers.

$$\frac{17}{2} \quad \frac{13}{6} \quad \frac{28}{10} \quad \frac{41}{7}$$

4. Sarah wants to convert $\frac{17}{4}$ to a mixed number. She writes:

$$\frac{17}{4} = 3\frac{5}{4}$$

Explain what mistake Sarah has made, and write the correct answer.

5. The school kitchen has 17 packs of butter. Each pack weighs $\frac{1}{4}$ kg. How many kilograms of butter do they have altogether? Express your answer as a mixed number.

6. I have a $6\frac{1}{2}$ m length of string. How many $\frac{1}{2}$ m lengths can I cut?

4F-3 Add and subtract improper and mixed fractions (same denominator).

1. It is a $2\frac{3}{4}$ km cycle ride to my friend's house, and a further $\frac{3}{4}$ km ride to the park. How far do I have to cycle altogether?

2. I have 5m of rope. I cut off $\frac{4}{10}$ m. How much rope is left?

3. Fill in the missing n

$2\frac{1}{7}$	$2\frac{4}{7}$	
----------------	----------------	--

4. The table below shows how long I have been working each week. For how long have I been working?

h

5. A tailor has $3\frac{7}{10}$ m of fabric. He has used $\frac{1}{10}$ m. How much fabric is left?

5F-1 Find non-unit fractions of quantities.

1. Find:

$\frac{3}{8}$ of 32

$\frac{2}{9}$ of 45

$\frac{3}{5}$ of 30

$\frac{2}{7}$ of 630

$\frac{4}{9}$ of 315

$\frac{2}{5}$ of 3,500

$\frac{5}{8}$ of 2,720

2. Stan bought 15 litres of paint and used $\frac{2}{3}$ of it decorating his house. How much paint has he used?

3. My granny lives 120km from us. We are driving to see her and are $\frac{5}{6}$ of the way there. How far have we driven so far?

4. I am $\frac{3}{4}$ of the way through my holiday. I have 3 days of holiday left. How many days have I already been on holiday for?

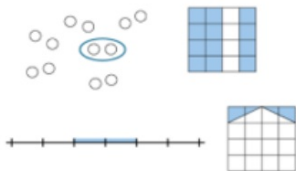
5. A school is trying to raise £7,500 for charity. They have raised $\frac{5}{6}$ of the total so far. How much have they raised?

6. $\frac{4}{5}$ of the runners in a race have finished the race so far. If 92 people have finished, how many runners were in the race altogether?

7. There are 315 cows on a farm. $\frac{3}{5}$ of the cows are having calves this year. How many cows are not having calves?

5F-2 Find equivalent fractions

1. Find different ways to write the fraction of each shape or quantity that is shaded or highlighted.



2. Draw lines to match the unit fractions on the left with their equivalent fractions on the right.

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

$$\frac{3}{12}$$

$$\frac{1}{4}$$

$$\frac{4}{20}$$

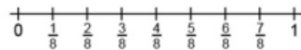
$$\frac{1}{3}$$

$$\frac{3}{9}$$

3. Mark each fraction on the number line.

$$\frac{9}{24} \quad \frac{36}{48} \quad \frac{12}{16} \quad \frac{10}{40} \quad \frac{9}{72}$$

Hint: convert each fraction to an equivalent fraction with a denominator of 8.



4. Use the numbers 3, 24, 8 and 1 to complete this chain of equivalent fractions.

$$\frac{2}{6} = \frac{\square}{\square} = \frac{\square}{\square}$$

5. Fill in the missing digits.

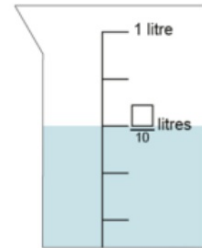
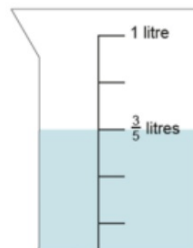
$$\frac{4}{8} = \frac{12}{\square}$$

$$\frac{3}{5} = \frac{\square}{40}$$

$$\frac{3}{\square} = \frac{21}{63}$$

$$\frac{20}{30} = \frac{\square}{15}$$

6. Fill in the missing number.



7. Sally and Tahira each have a 1m ribbon.

Sally cuts her ribbon into 5 equal parts and uses 1 of them to make a hair tie.

Tahira cuts her ribbon into 10 equal parts and uses 3 of them to make a bracelet.

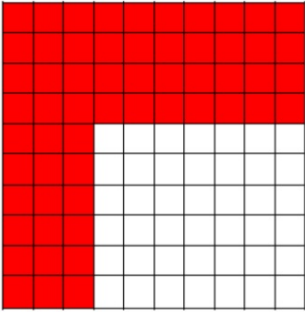
Have Sally and Tahira used the same amount of ribbon? Explain your answer.

Lesson 5

WALT explore decimals
up to two decimal
points

Mega Challenge

Write the decimal number
that is illustrated below:



*Of the red
section*

Write five and ninety-one
tenths as a decimal number.

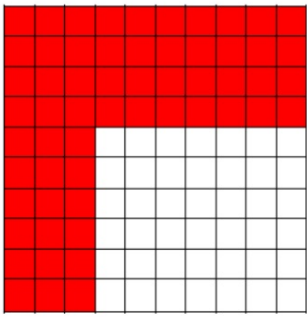
Insert $<$ or $>$ to make the
statement below true.

0.06  0.006

Vocabulary

WALT explore decimals up to two decimal points

Write the decimal number that is illustrated below:



0.76

Write five and ninety-one tenths as a decimal number.

5.91

Insert < or > to make the statement below true.

0.06 0.006

If you correctly answered all of the mega challenge question, move on to the class questions.

If you did not answer all the mega challenge correctly, stay with me to learn more.

Class questions - see next slide!

REASON AND PEER MARK FOR EVERY QUESTION!

WALT explore decimals up to two decimal points

LET'S LEARN



Tens	Ones	tenths	hundredths
		<div>0.1 0.1 0.1</div> <div>0.1 0.1 0.1</div> <div>0.1</div>	<div>0.01 0.01</div>

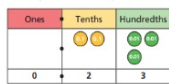
There are ones, tenths and hundredths.

The number is

WALT explore decimals up to two decimal points

Decimals up to 2 d.p.

1 What number is represented on the place value chart?



Complete the sentences.

There are ones, tenths and hundredths.

The number is .

2 Represent these numbers on a place value chart.

Complete the sentences.

a) 0.56

There are ones, tenths and hundredths.

b) 0.08

There are ones, tenths and hundredths.

c) 1.48

There is one, tenths and hundredths.

d) 2.07

There are ones, tenths and hundredths.

3 Mo is thinking about tenths and hundredths.

In the number 2.49
the digit 4 represents
4 tenths or 0.4



What is the value of the digit 4 in each of these numbers?

a) 14.8 d) 42.03

b) 13.74 e) 106.48

c) 8.04 f) 176.4

4 a) Circle the number that has 5 in the tenths position.

53 5.3 0.53 0.35

b) Write three numbers that have 3 in the hundredths position.

6 Rosie is finding different ways to partition 0.73

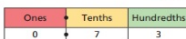
$0.73 = 0.7 + 0.03$
or $0.3 + 0.43$



5 Complete the o

a) $0.64 = 0.6 +$

b) $0.53 = 0.5 +$



In what other ways can 0.73 be partitioned?
List as many ways as you can below.

7 Alex is thinking of a number.



My number has 3 digits,
is greater than 1 but less than
2 and has 3 tenths.

a) What number could Alex be thinking of?

Talk about it with a partner.

b) Write all the possible numbers Alex could be thinking of.

c) Write another clue that would mean Alex's number is 1.34

Do it!
Reason it!
Peer Mark it!

8 Match the words to the numerals.

5 ones, 6 tenths and 5 hundredths

0.56

5 tenths and 6 hundredths

60.05

5 ones, 5 tenths and 6 hundredths

5.56

6 tens and 5 hundredths

5.65

9 Annie has three digit cards.

0 2 5

Are the statements true or false? Explain your answers.

a) The largest number Annie can make is 5.02

b) The smallest number Annie can make is 0.25

c) Annie can make six different numbers.

WALT explore decimals up to two decimal points



7 ones and 2 hundredths is 7.2 as a decimal.

Tens	Ones	tenths	hundredths

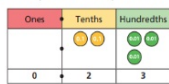
Where has tiny gone wrong?

WE DO

WALT explore decimals up to two decimal points

Decimals up to 2 d.p.

1 What number is represented on the place value chart?



Complete the sentences.

There are ones, tenths and hundredths.

The number is .

2 Represent these numbers on a place value chart.

Complete the sentences.

a) 0.56

There are ones, tenths and hundredths.

b) 0.08

There are ones, tenths and hundredths.

c) 1.48

There is one, tenths and hundredths.

d) 2.07

There are ones, tenths and hundredths.

3 Mo is thinking about tenths and hundredths.

In the number 2.49
the digit 4 represents
4 tenths or 0.4



What is the value of the digit 4 in each of these numbers?

a) 14.8 d) 42.03

b) 13.74 e) 106.48

c) 8.04 f) 176.4

4 a) Circle the number that has 5 in the tenths position.

53 5.3 0.53 0.35

b) Write three numbers that have 3 in the hundredths position.

6 Rosie is finding different ways to partition 0.73

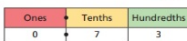
$0.73 = 0.7 + 0.03$
or $0.3 + 0.43$



5 Complete the o

a) $0.64 = 0.6 +$

b) $0.53 = 0.5 +$



In what other ways can 0.73 be partitioned?
List as many ways as you can below.

7 Alex is thinking of a number.



My number has 3 digits,
is greater than 1 but less than
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a) What number could Alex be thinking of?

Talk about it with a partner.

b) Write all the possible numbers Alex could be thinking of.

c) Write another clue that would mean Alex's number is 1.34

Do it!
Reason it!
Peer Mark it!

8 Match the words to the numerals.

5 ones, 6 tenths and 5 hundredths

0.56

5 tenths and 6 hundredths

60.05

5 ones, 5 tenths and 6 hundredths

5.56

6 tens and 5 hundredths

5.65

9 Annie has three digit cards.

0 2 5

Are the statements true or false? Explain your answers.

a) The largest number Annie can make is 5.02

b) The smallest number Annie can make is 0.25

c) Annie can make six different numbers.

Answers

Decimals up to 2 d.p.

- 1 What number is represented on the place value chart?

Ones	Tenths	Hundredths
	● ●	● ● ● ●
0	2	3

Complete the sentences.

There are 0 ones, 2 tenths and 3 hundredths.

The number is 0.23.

- 2 Represent these numbers on a place value chart. Complete the sentences.

a) 0.56

There are 0 ones, 5 tenths and 6 hundredths.

b) 0.08

There are 0 ones, 0 tenths and 8 hundredths.

c) 1.48

There are 1 ones, 4 tenths and 8 hundredths.

d) 2.07

There are 2 ones, 0 tenths and 7 hundredths.

- 3 Mo is thinking about tenths and hundredths.

In the number 2.49 the digit 4 represents 4 tenths or 0.4



What is the value of the digit 4 in each of these numbers?

a) 14.8 4 tens d) 42.03 4 tens

b) 13.74 4 hundredths e) 106.48 4 tenths

c) 8.04 4 hundredths f) 176.4 4 tenths

- 6 Rosie is finding different ways to partition 0.73

$0.73 = 0.7 + 0.03$
or $0.3 + 0.43$



Ones	Tenths	Hundredths
0	7	3

In what other ways can 0.73 be partitioned?

List as many ways as you can below.

$0.1 + 0.63$ $0.5 + 0.23$

$0.2 + 0.53$ $0.6 + 0.13$

$0.4 + 0.33$

- 7 Alex is thinking of a number.



My number has 3 digits, is greater than 1 but less than 2 and has 3 tenths.

- a) What number could Alex be thinking of?

Talk about it with a partner.

- b) Write all the possible numbers Alex could be thinking of.

1.30, 1.31, 1.32, 1.33, 1.34, 1.35, 1.36, 1.37,

1.38, 1.39

- c) Write another clue that would mean Alex's number is 1.34

It has 4 hundredths.

- 8 Match the words to the numerals.

5 ones, 6 tenths and 5 hundredths	0.56
5 tenths and 6 hundredths	60.05
5 ones, 5 tenths and 6 hundredths	5.56
6 tens and 5 hundredths	5.65

- 9 Annie has three digit cards.

0	2	5
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Are the statements true or false? Explain your answers.

- a) The largest number Annie can make is 5.02

False $5.20 > 5.02$

- b) The smallest number Annie can make is 0.25

True

- c) Annie can make six different numbers.

0.25 0.52 2.05 2.50 5.02 5.20

True

Plenary

0.64

My number is zero point
sixty four

