L decimals.

ing. z nearest whole number and tenth

anipulatives to support me with rounding

ip between tenths, hundredths and

Flashback 4.

- Work out $3\frac{5}{8} \frac{1}{4}$
- Find the sum of $\frac{2}{5}$, $\frac{1}{10}$ and $\frac{3}{20}$ 2)
- Which is greater, $\frac{3}{4}$ or $\frac{5}{6}$? 3)
- 4) How many sides does a pentagon have?

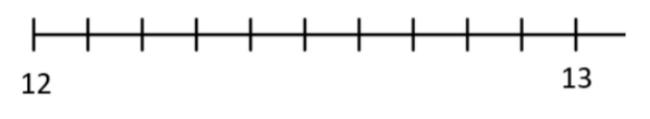
Manipulatives lesson using diennes

						F 1 0 s	hb	ck	Ü
						I) Wor	k out $3\frac{5}{6}$	- 	
						2) Find	the sum o	of $\frac{2}{5}$, $\frac{1}{10}$ ar	$\frac{3}{20}$
						3) Whi	ch is great	ter, $\frac{3}{4}$ or $\frac{3}{6}$?
						4) How	many side	es does a	pentagon
					L				

1				
Consolidat	ion LO: To round decimals.			
I know the	rules for rounding.			
	d decimals to the nearest whole number and tenth.			
1 understa	nd how to use manipulatives to support me with rounding			
 decimals. 				
	nd the relationship between tenths, hundredths and			
thousandth	is.			
GET R	READY			
1)	Round 36 to the nearest 10			
		J		
2 a)	What number is the arrow pointing			
,	4-2			
	4 1 5			
- L-1	\\/\begin{align*} \A/\begin{align*} \A/al	,		
b)	What is the nearest whole number to 4.3?			
_				
21	Have many decimal places and the seeding the			
_ 3)	How many decimal places are there in the			
	number 5.03?			



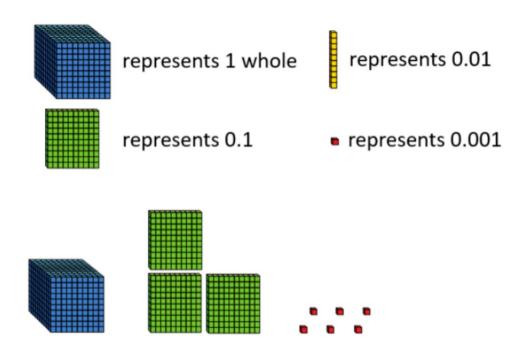
What would the intervals go up in?



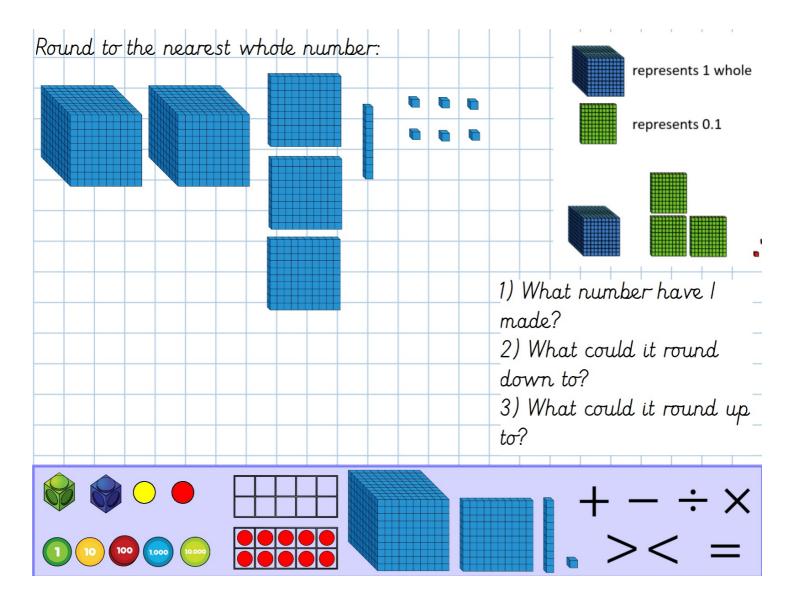
12.3

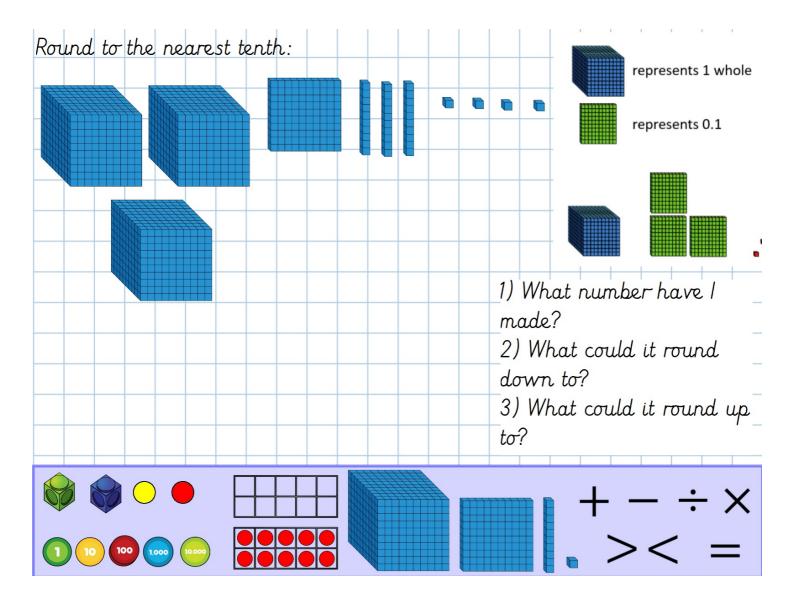
The nearest whole number to 12.3 is ____

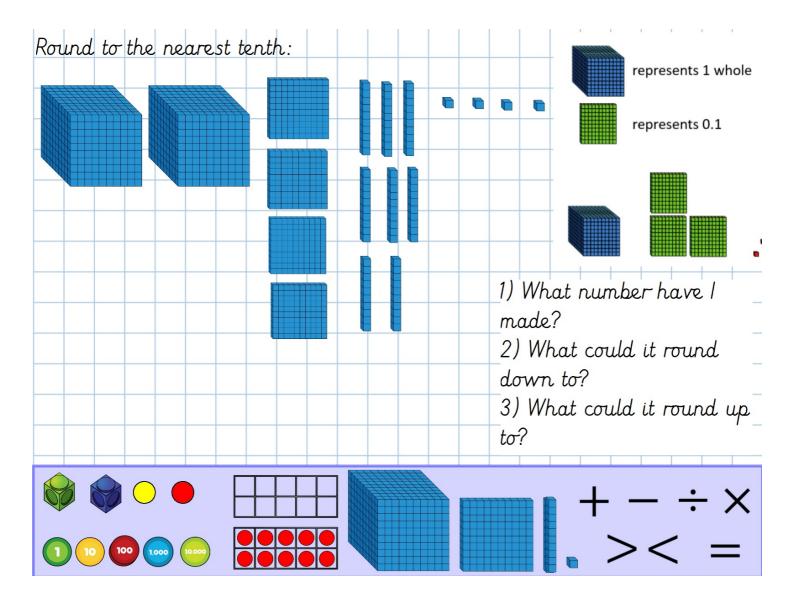
When you round to the nearest whole number, how many decimal places are there?



Practise making these numbers:





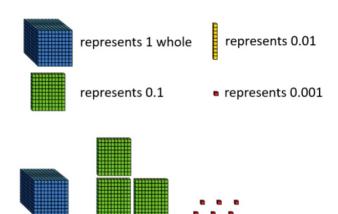


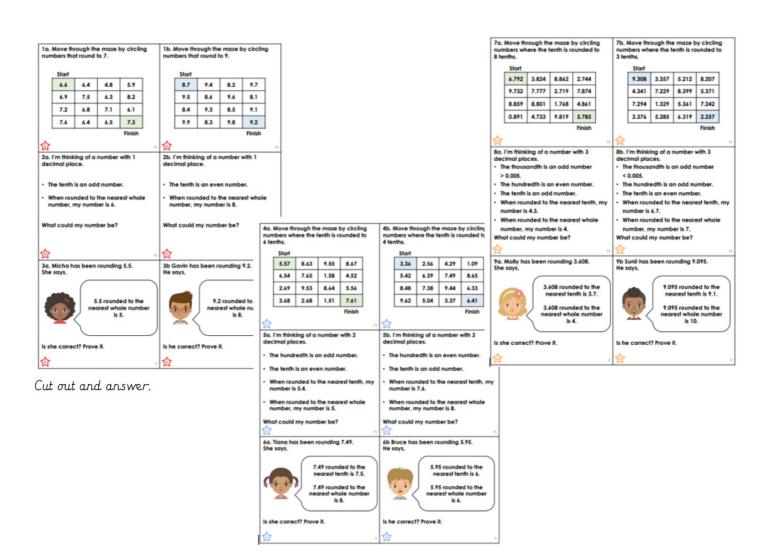
Using dienes, round these numbers to the nearest whole number:

- 1.64
- 3.11
- 2.06

Using dienes, round these numbers to the nearest tenth:

- 2.45
- 3.68
- 1.29
- 3.08
- 1.39

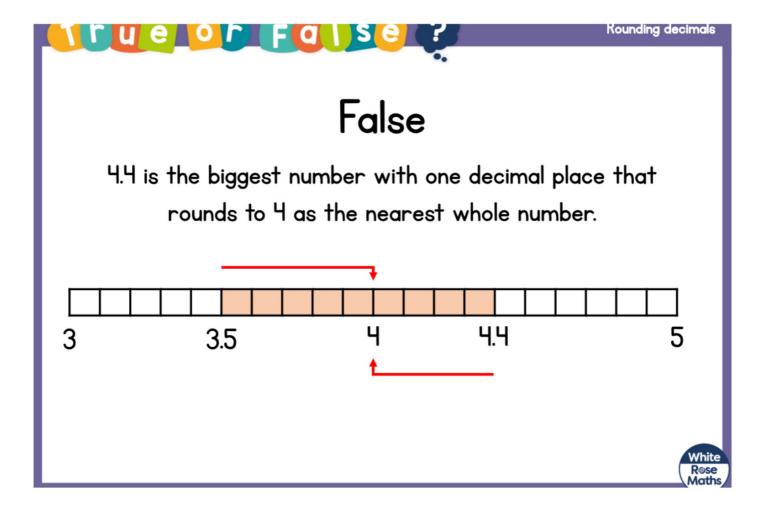


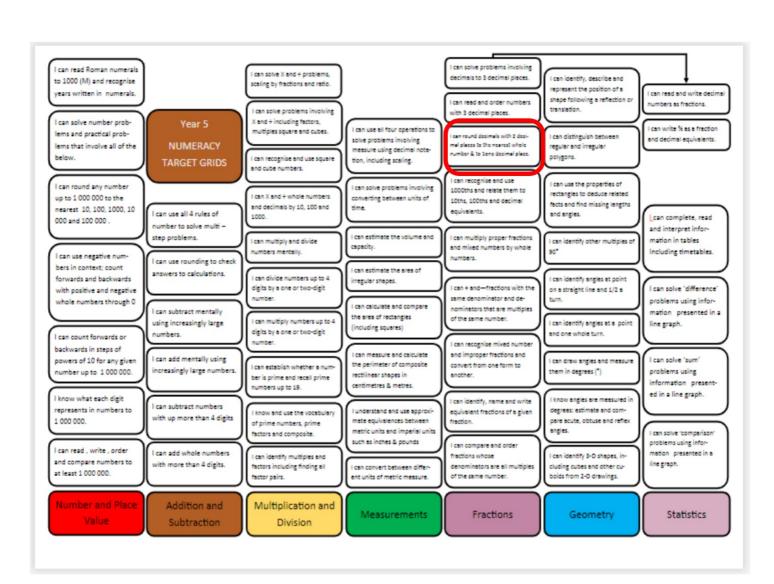


True or False?

3.9 is the biggest number with one decimal place that rounds to 4







action of an amount.

el to help me visualise fractions.

nator and numerator tell me.

o <u>follow:</u> amount divided by the ed by the numerator.

Flashback 4.

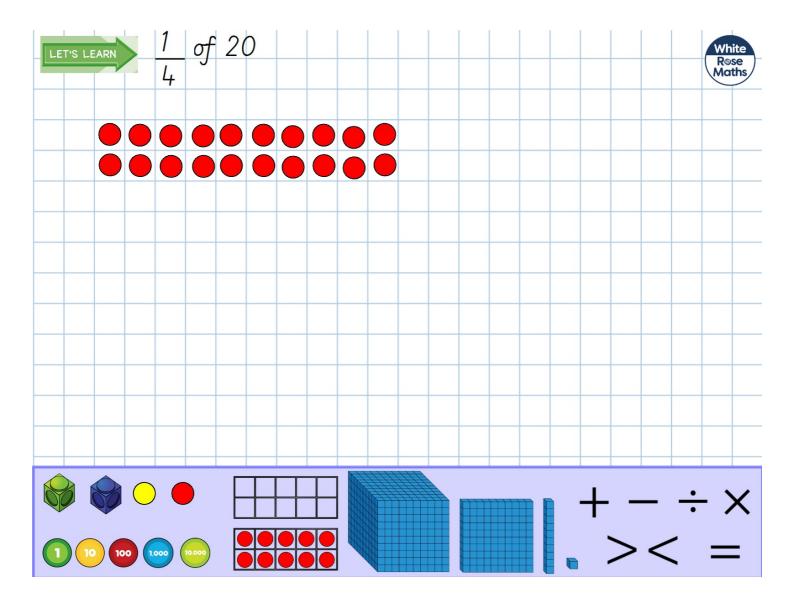
Flashback 4

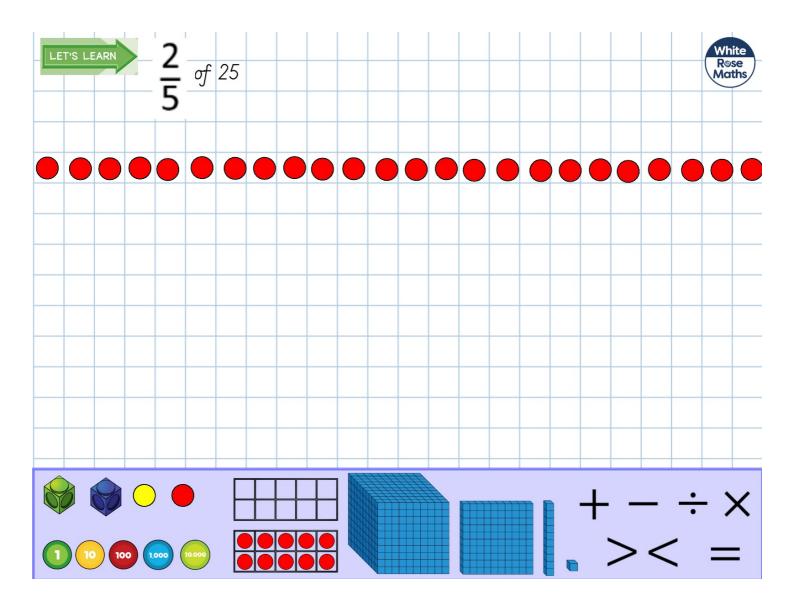
Year 5

- 1) Work out $6\frac{11}{12} \frac{3}{4}$
- 2) Add $3\frac{1}{2}$ to $4\frac{1}{4}$
- 3) Which is the greatest $\frac{3}{7}$, $\frac{3}{5}$ or $\frac{3}{11}$?
- 4) What is the value of the I in the number 5,109

						FI	ash	bac	3 (1)
						1)	ash Work out	$+6\frac{11}{12}-\frac{3}{4}$	
							Add $3\frac{1}{2}$		0.0
						3) 4)	What is	the greates	
							vvnar is	ine value of	ine i in ine

Consolidation LO: To find a fraction of an amount.				
know how to use a bar model to help me visualise f	actions.			
can find a fraction of an amount.				
understand what the denominator and numerator tell				
understand the steps I need to follow: amount divide	d by the			
denominator and then multiplied by the numerator.				
GET READY				
1) $\frac{1}{3}$ of 36 =				
2) $\frac{6}{3}$ of 36 =				
-				
3) $\frac{6}{6}$ of 36 =				
6				
4) $\frac{9}{3}$ of 36 $\frac{18}{6}$ of 36				
3 6				





Usi	ng	coun	ters,	, wo	rk o	ut th	rese	frac	tion	s of	am	ouni	ts:	

Μσι	del 1	ısin	g ba	r mu	odel.	s to	find	fra	ctior	ıs oj	£		
amo	ount	s:											

Usi	ng	whit	eboc	ırds	ana	l ba	r mo	dels	, fir	id th	iese	frac	tion	s of	
amo	oun	.ts:													

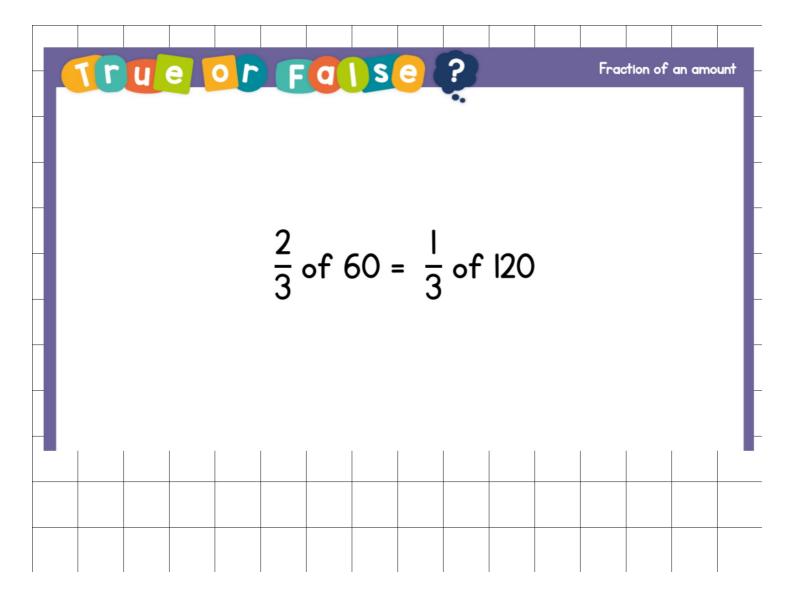
W	role	num	ber	÷	den	.omin	ator	then	ı x n	ume	rator	-]		
Fin	d fra	actio	ns d	of ar	noui	rts:								

Have a go at the questions:

Whole number ÷ denominator then x numerator

cut and answer:

- Big Nate is trying to eat 45 slices of pizza in record time. After three minutes, he has managed 2/5 of them. How many slices has he eaten?
- 2. Billy, the Giraffe and the Pelly have 81 windows to clean today. So far, they have cleaned 2/9 of them. How many windows is that?
- Vinith has read 5/6 of his new Skulduggery Pleasant book. The book has 420 pages. How many has he read?
- 4. The accio spell is cast 320 times in the Harry Potter books. Hermione casts 3/8 of them. How many times does she cast it?
- 5. There are 279 sheep in the field. Babe, the sheep-pig, has rounded up 2/9 of them. How many is that?



Fraction of an amount

True or False?

True

$$\frac{2}{3}$$
 of 60 = 40

40	40	40
----	----	----

$$\frac{1}{3}$$
 of 120 = 40

can solve problems involving I can read Roman numerals can solve X and + problems. decimals to 3 decimal places. I can identify, describe and to 1000 (M) and recognise scaling by fractions and ratio. represent the position of a years written in numerals. I can read and write decima shape following a reflection or I can read and order numbers numbers as fractions. can solve problems involving with 3 decimal places I can solve number prob-Year 5 X and + including factors, multiples square and cubes. I can use all four operations to can write % as a fraction lems and practical prob-I can distinguish between and decimal equivalents. solve problems involving lems that involve all of the **NUMERACY** mel places to the nearest whole regular and irregular measure using decimal nbor & to tone decimal place polygons. I can recognise and use square tion, including scaling. TARGET GRIDS and cube numbers. can recognise and use I can use the properties of I can solve problems involving I can round any number 1000ths and relate them to rectangles to deduce related up to 1 000 000 to the I can X and + whole numbers converting between units of 10ths, 100ths and decimal facts and find missing lengths and decimals by 10, 100 and nearest 10, 100, 1000, 10 time. I can use all 4 rules of equivalents. and angles. 1000 can complete, read 000 and 100 000 number to solve multi and interpret inforcan estimate the volume and step problems. I can multiply proper fractions I can identify other multiples of I can multiply and divide cepecity umbers mentally. Including timetables. I can use negative numnumbers I can use rounding to check bers in context; count answers to calculations can divide numbers up to 4 forwards and backwards rregular shapes. I can identify angles at point digits by a one or two-digit I can + and-fractions with the I can solve 'difference' with positive and negative on a straight line and 1/2 a same denominator and deproblems using inforwhole numbers through 0 I can calculate and compare nominators that are multiples mation presented in a the area of rectangles of the same number can multiply numbers up to 4 using increasingly large can identify angles at a point line graph. (including squares) digits by a one or two-digit numbers. I can count forwards o number. can recognise mixed number backwards in steps of I can measure and calculate and improper fractions and I can add mentally using powers of 10 for any given I can solve 'su can draw angles and measure the perimeter of composite can establish whether a num convert from one form to ncreasingly large numbers number up to 1 000 000. them in degrees (*) problems using ber is prime and recall prime information presentcentimetres & metres numbers up to 19. ed in a line graph. I know what each digit I know angles are measured in I can subtract numbers represents in numbers to understand and use approxi equivalent fractions of a given degrees: estimate and comknow and use the vocabulary with up more than 4 digits 1 000 000. pare acute, obtuse and reflex mate equivalences between frection. metric units and imperial units factors and composite can solve 'comparison such as inches & pounds can compare and orde problems using info I can read , write , order I can add whole numbers mation presented in a can identify multiples and frections whose can identify 3-D shapes, inand compare numbers to vith more than 4 digits. ine graph. factors including finding all I can convert between differ denominators are all multiples cluding cubes and other cuat least 1 000 000. boids from 2-D drewings. of the same number. fector pairs. ent units of metric measure. Number and Place Addition and Multiplication and Measurements Fractions Geometry Statistics Value Subtraction Division

rite simple equivalent fractions,

a whole.

ralent fractions, decimals and

ind hundred squares to help me iges.

Flashback 4.

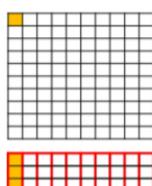
Flashback 4 Year 5 | We

- 1) Work out $5\frac{3}{5} 2\frac{1}{10}$
- 2) Take $\frac{3}{10}$ from I whole.
- 3) Continue the sequence $1\frac{5}{6}$, $1\frac{3}{6}$, $1\frac{1}{6}$, ---
- 4) How many metres are there in 6 km?

I) Work out $5\frac{3}{5} - 2\frac{1}{10}$ 2) Take $\frac{3}{10}$ from I whole. 3) Continue the sequence $1\frac{5}{6}$, $1\frac{3}{6}$, 4) How many metres are there in														
1) Work out $5\frac{3}{5} - 2\frac{1}{10}$ 2) Take $\frac{3}{10}$ from I whole. 3) Continue the sequence $1\frac{5}{6}$, $1\frac{3}{6}$,														
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2) Take $\frac{3}{10}$ from I whole. 3) Continue the sequence $1\frac{5}{6}$, $1\frac{3}{6}$,									F	a	sh	ba	ck	ų,
3) Continue the sequence $1\frac{5}{6}$, $1\frac{3}{6}$,									I)	W	/ork ou	+ 5 3 –	- 2 	
									2)	To	ake 3 10	from I v	whole.	
									3)	C	ontinue	the se	quence	$1\frac{5}{6}, 1\frac{3}{6}$
									4)					
												,		
								L						
								1				'	1	,

Consolidation LO: To recognise and write simple equivalent fractions,	
decimals and percentages.	
I know that they all represent part of a whole.	
I can recognise and write simple equivalent fractions, decimals and	
_ percentages.	
I understand how to use bar models and hundred squares to help me	
with fractions, decimals, and percentages.	
GET READY	
1-) \//h-t ====================================	
1a) What percentage of the	
hundred square is shaded?	
b) What fraction on the hundred	
square is shaded?	
2a) What percentage of the bar model is shaded?	
b) What fraction of the bar model is shaded?	
	'

Let's recap...



= one hundredth

$$=\frac{1}{100} = 0.01$$
 1 %

$$= \frac{10}{100}$$
 = ten hundredths

$$= \frac{1}{10}$$
 = one tenth = 0.1

percentage

'out of' 'one hundred'



0. 60%

%	6	20	0.		
		20			
%		<i>3 50</i>	0.	•	
		50			

Co	nve	rt .	2%	inte	τa	de	cim	al	ano	l pa	erce	nta	ige:	
										'			J	

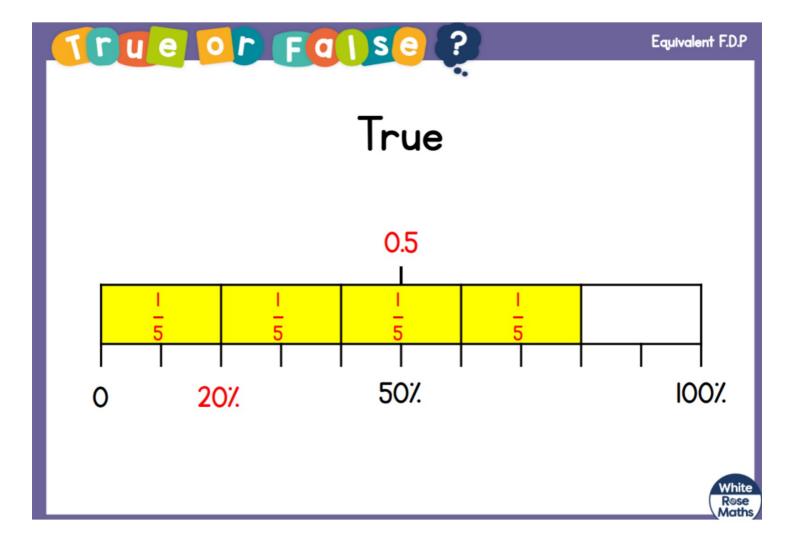
Equival	ent FD	P to re	ecognis	se:		
1						
2						
1						
5						
1						
3						

$\frac{1}{2}$ 10%	0.75 2 	30% 1/4	cut and mate the equivalen cards:		
25%	$\frac{1}{3}$	3 50	0.33		
	$\frac{23}{100}$	0.125	23%		
- photo - collage	$\frac{1}{20}$	0.06	$33\frac{1}{3}\%$		

True or False?

0.5 is greater than 20% but less than $\frac{4}{5}$





I can solve problems involving I can read Roman numerals can solve X and + problems. decimals to 3 decimal places. I can identify, describe and to 1000 (M) and recognise scaling by fractions and ratio. represent the position of a years written in numerals. can read and write decim shape following a reflection or I can read and order numbers numbers as fractions can solve problems involving with 3 decimal places I can solve number prob-Year 5 X and + including factors, multiples square and cubes. I can use all four operations to can write % as a fraction lems and practical prob-I can distinguish between nd decimal equivalents. solve problems involving lems that involve all of the **NUMERACY** mel places to the nearest whole regular and irregular measure using decimal nbor & to tone decimal place polygons. I can recognise and use square tion, including scaling. TARGET GRIDS and cube numbers. can recognise and use I can use the properties of I can round any number 1000ths and relate them to rectangles to deduce related up to 1 000 000 to the I can X and + whole numbers converting between units of 10ths, 100ths and decimal facts and find missing lengths and decimals by 10, 100 and nearest 10, 100, 1000, 10 time. I can use all 4 rules of equivalents. and angles. 1000 can complete, read 000 and 100 000 number to solve multi and interpret inforcan estimate the volume and step problems. I can multiply proper fractions I can identify other multiples of I can multiply and divide cepecity umbers mentally. Including timetables. I can use negative numnumbers I can use rounding to check bers in context; count answers to calculations can divide numbers up to 4 forwards and backwards rregular shapes. I can identify angles at point digits by a one or two-digit I can + and-fractions with the I can solve 'difference' with positive and negative on a straight line and 1/2 a same denominator and deproblems using inforwhole numbers through 0 I can calculate and compare nominators that are multiples mation presented in a the area of rectangles of the same number can multiply numbers up to 4 using increasingly large can identify angles at a point line graph. (including squares) digits by a one or two-digit numbers. I can count forwards o number. can recognise mixed number backwards in steps of I can measure and calculate and improper fractions and I can add mentally using powers of 10 for any given I can solve 'su can draw angles and measure the perimeter of composite can establish whether a num convert from one form to ncreasingly large numbers number up to 1 000 000. them in degrees (*) problems using ber is prime and recall prime information presentcentimetres & metres numbers up to 19. ed in a line graph. I know what each digit I know angles are measured in I can subtract numbers represents in numbers to understand and use approxi equivalent fractions of a given degrees: estimate and comknow and use the vocabulary with up more than 4 digits 1 000 000. pare acute, obtuse and reflex mate equivalences between frection. metric units and imperial units factors and composite can solve 'comparison such as inches & pounds can compare and orde problems using info I can read , write , order I can add whole numbers mation presented in a can identify multiples and frections whose can identify 3-D shapes, inand compare numbers to vith more than 4 digits. ine graph. factors including finding all I can convert between differ denominators are all multiples cluding cubes and other cuat least 1 000 000. boids from 2-D drewings. of the same number. fector pairs. ent units of metric measure. Number and Place Addition and Multiplication and Measurements Fractions Geometry Statistics Value Subtraction Division

ompare numbers up to 3 decimal

ending mean.

s with up to 3 decimal places.

columns that are important when size of the digit.



nals as mixed numbers.

he numbers and write them in

Flashback 4.

Year 5

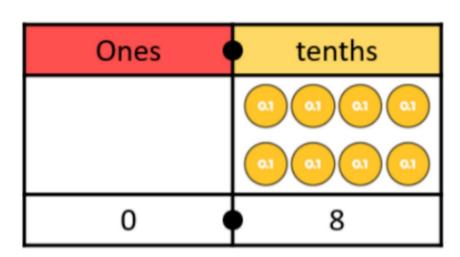
- Work out $4\frac{2}{3} \frac{5}{6}$ I)
- Add $2\frac{1}{2}$ to $3\frac{7}{10}$ 2)
- Which is greater $\frac{\parallel}{20}$ or $\frac{\parallel}{10}$? 3)
- 4) What number comes next?

850 870 **0P8**

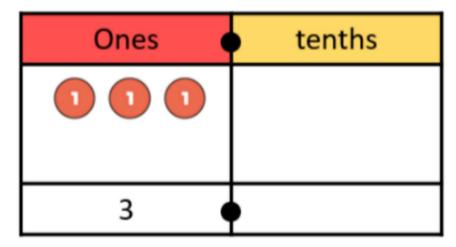
		I							
						FI	shb	ack	4
						I)	Vork out L	$1\frac{2}{3} - \frac{5}{6}$	0,
						2)	Add $2\frac{1}{2}$ to	3 7 10	
						3)	Which is gr	reater $\frac{11}{20}$ c	or 10 ?
						4)	What numb		
							850	870	89

Consolidation LO: To order and compare numbers up to 3 decimal places.			
I can order and compare numbers with up to 3 decimal places. I understand it is the place value columns that are important when ordering and comparing, not the size of the digit. Use the digits 1.4 and 5 to complete the decimal manber.			
List all the possible numbers you can make. Write these decimals as mixed numbers. Choose three of the numbers and write them in			
GET READY			
1) 25 () 11			
1) 26 () 41			
2) What is the digit in the tenths place of 8.63?			
_			
3) What is the value in the hundredths place of 4.9?			
_			
4) 50 hundredths = tenths			

What are the rules for comparing numbers?



0.8 🔘 3



Which number is greater and why?

658

524

45.09

43.87

30.42

30.39

Order these decimals in ascending order:

65.64

76.52

64.88

19.49

72.89

Com	p	let	z tł	ris	sto	rtei	ner	rts	wi	th	mo	re	tho	ın,	
Com	t	ha	n c	re	.qu	al	to:								
			() (20					7	26					
		() 	38 n	l				6.7	201	em				
			1.2	?3m					736	5cn	ı				

Have a go at the questions: 9a. Tick the rows of decimals that are ordered correctly from smallest to largest. 9b. Tick the rows of decimals that are ordered correctly from largest to smallest. he rows of decimals that are correctly from smallest to largest. 1b. Tick the rows of decimals that are ordered correctly from largest to smallest 2.589 25.5÷10 2.59 2.939 0.987 0.908 8.1÷10 0.089 1.54 1.83 4.53 3.53 3.35 3.39 3.487 35.4÷10 3.548 3.85 8.487 8.478 84.7÷10 8.401 2.49 2.59 7.47 7.45 5a. Tick the rows of decimals that are ordered correctly from smallest to largest. 5b. Tick 6.309 6.390 6.903 1.839 1.831 11.8÷10 1.829 6.61 7.83 7.73 7.68 1.307 1.459 1.67 1.679 3.539 10a. These decimals have been placed in ascending order. Circle the decimal that completes the sequence 10b. These decimals have been placed in descending order. Circle the decimal decimals have been placed in 2b. These decimals hav g order. Circle the decimal that es the sequence that completes the sequence. 4.039 4.531 4.635 4.75 7.839 8.487 8.531 6.398 6.239 5.6 6a. These decimals have been placed in ascending order. Circle the decimal that completes the sequence 6b. Thes 60.1+10 6.293 5.28 5.16 6.487 6.531 7.02 3.1 11a. Complete the statement using >, < or = to make it correct. 11b. Complete the statement using >, < or = to make it correct. 3b. Complete the stater = to make it correct. plete the statement using >, < or 7.038 7.165 9.451km 2.03 5.74m 5.76m x10 x 10 7a. Complete the statement using >, < or = to make it correct. 7b. Com 12a. Place the numbers in ascending 12b. Place the numbers in descending 4b. Place the numbers i order. the numbers in ascending 3.29km 874cm 9.689 9 $\frac{601}{1000}$ 90.58÷10 9 $\frac{865}{1000}$ 7.831 7 839 78.81÷10 7 865 1000 8a. Place the numbers in ascending 8b. Place .58 2.59 2.65 3.85 6.73 7.63 6 2.589 $2\frac{561}{1000}$ 2.658 $2\frac{165}{1000}$ 8.731 8 739 8.63 8 665 1000

	Use the digits 3, 4 and 5 to complete the decimal number. List all the possible numbers you can make. Write these decimals as mixed numbers. Choose three of the numbers and write them in words.													



 $10 \times 4.001 > 4.01 \div 10$



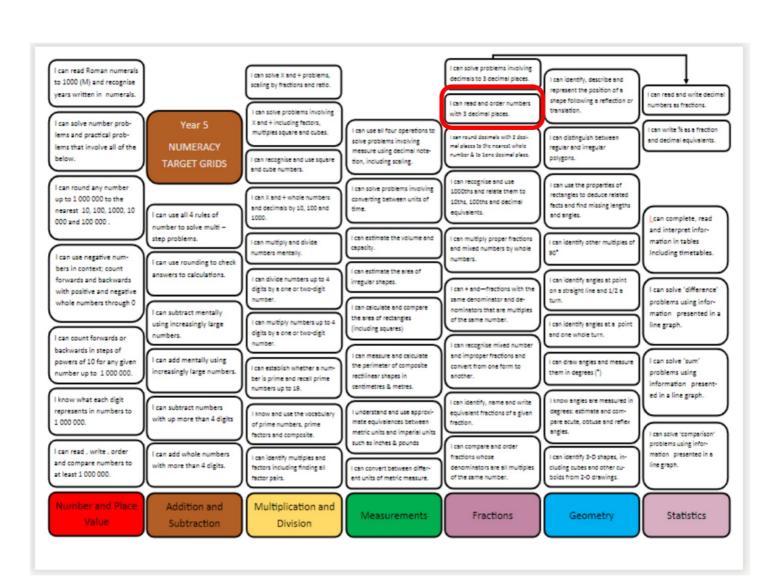
rue or Folse

True

 $10 \times 4.001 > 4.01 \div 10$

4.01 > 4.001





Ari	thmeti	k L0:	To m	ultiply	and	divide	e numi	bers b	y 10 d	ınd 10	00.			
_ l kı	row tl ride, m	hat w ry an.	hen I swer i	multip will be	ly, mi e smai	y ans ller.	wer w	rill be	bigger			. 1		
1 u	an mu nderst makir	and ti	hat m	ultiply	ing a	rd div	riding	by 10	and					
nu	as making a number 10 or 100 times smaller/bigger and making a number 1 tenth or 1 hundredth times the size.													

GET READY

On your whiteboards, answer these questions:

2 x 10

4 x 10

8 x 10

11 x 10

5 x 100

7 x 100

9 x 100

What do you notice about your answers and the questions?

When we multiply, what happens to our answer?

So, which way will the digits move on a PV chart?

When we divide, what happens to our answer?

So, which way will the digits move on a PV chart?

How many spaces will they move if it is by 10?

How many spaces will they move if it is by 100?

Or	ı yo	our like	wh	itek	ισαι	ds,	, dr	aw	a	pla	ce	vali	æ	
ch	art	like	e th	is:										
							10							
M	Hth	.Tth	Th	Н	T	0	t	h	th					
						•								
T - g	ive c	hn nu	mber	s to m	rultip	ly and	d divi	de by	10 σ	r 100				

Your turn:

Extension activity:

Jack is thinking of a 3-digit number.

When he multiplies his number by 100, the ten thousands and hundreds digit are the same.

The sum of the digits is 10

What number could Jack be thinking of?

Use the digit cards to fill in the missing digits.

123456789

170 ÷ 10 = ___

 $20 \times 10 = 3,00$

 $1,8_0 \div 10 = 1_6$

 $_9 \times 100 = 5, _00$

6_ = 6,400 ÷ 100