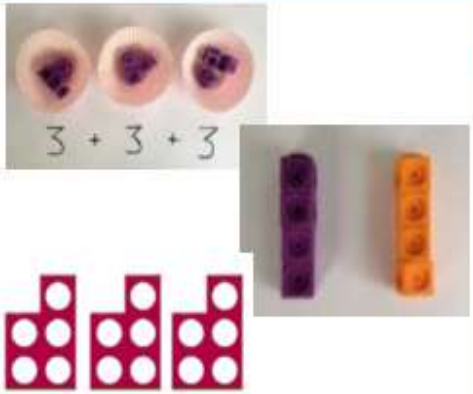
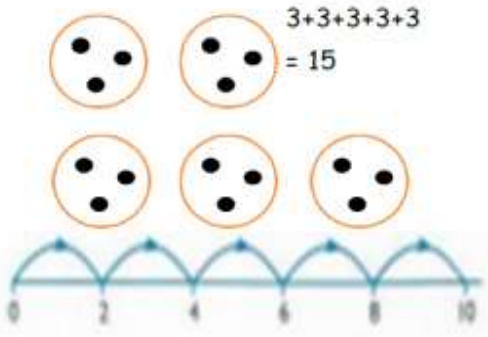
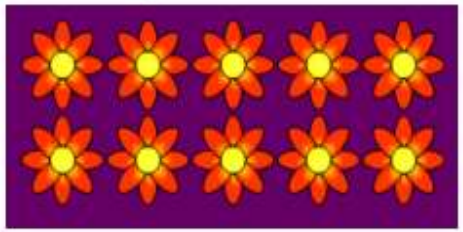
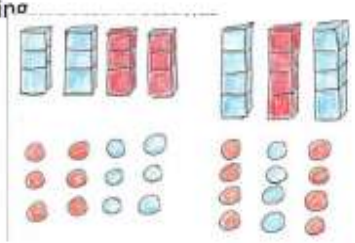
Uphill Primary School – Mathematics Calculation Policy (CPA approach)

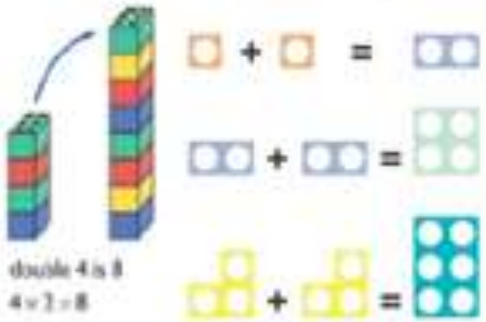
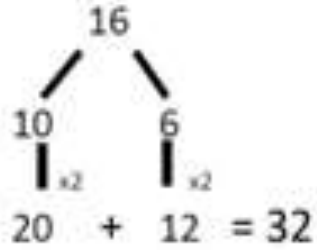
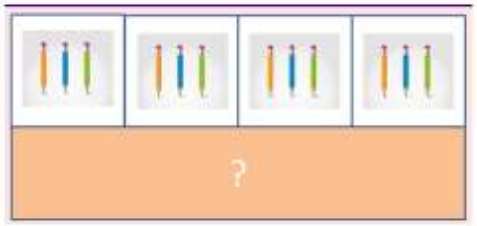
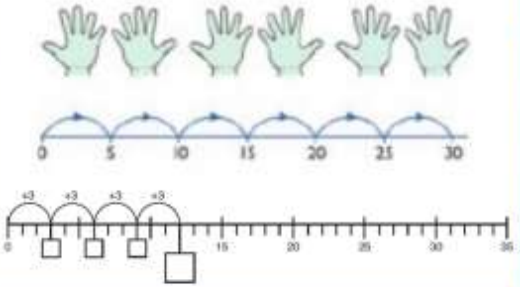
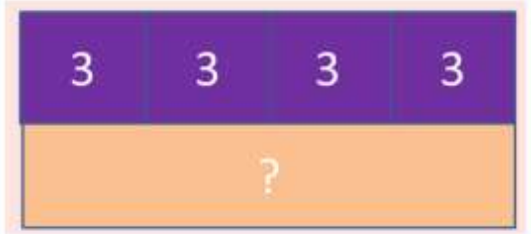
Multiplication

Objective & Strategy	Concrete	Pictorial	Abstract
Repeated addition	 Use different objects to add equal groups	Use pictorial including number lines to solve prob There are 3 sweets in one bag. How many sweets are in 5 bags altogether? 	Write addition sentences to describe objects and pictures. 
Understanding arrays	Use objects laid out in arrays to find the answers to 2 lots 5, 3 lots of 2 etc. 	Draw representations of arrays to show understanding 	Children to be able to use an array to write a range of calculations e.g. $10 = 2 \times 5$ $5 \times 2 = 10$ $2+2+2+2+2 = 10$ $10 = 5+5$

1`

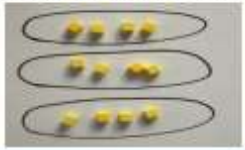
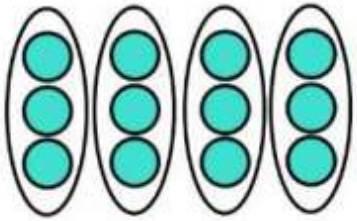
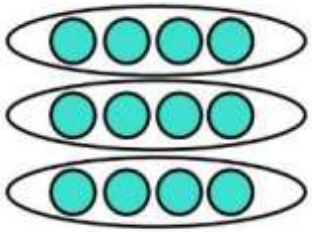
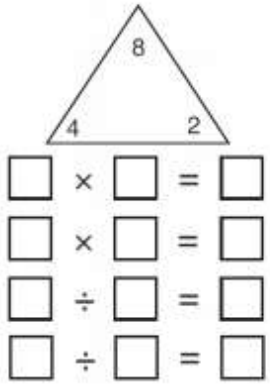
Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Multiplication

Objective & Strategy	Concrete	Pictorial	Abstract
Doubling	Use practical activities using manipulatives including cubes and Numicon to demonstrate doubling  	Draw pictures to show how to double numbers  	Partition a number and then double each part before recombining it back together. 
Counting in multiples of 2, 3, 4, 5, 10 from 0 (repeated addition)	Count the groups as children are skip counting, children may use their fingers as they are skip counting. Use bar models.  5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 40   	Number lines, counting sticks and bar models should be used to show representation of counting in multiples.   	Count in multiples of a number aloud. Write sequences with multiples of numbers. 0, 2, 4, 6, 8, 10 0, 3, 6, 9, 12, 15 0, 5, 10, 15, 20, 25 , 30 $4 \times 3 = \square$

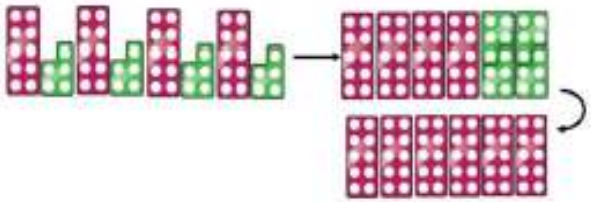
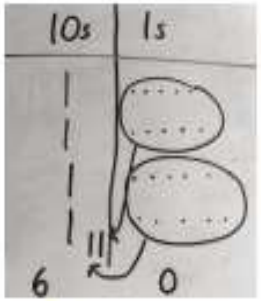
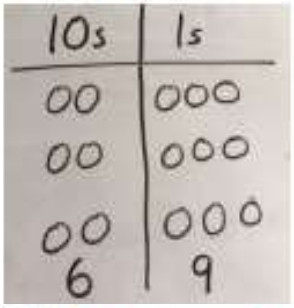
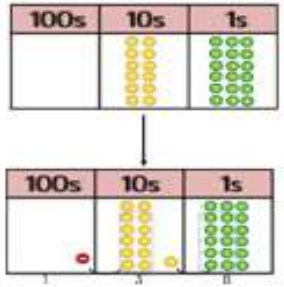
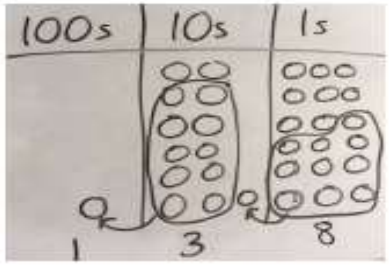
Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Multiplication

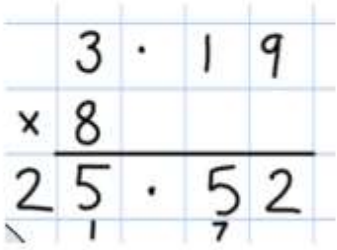
Objective & Strategy	Concrete	Pictorial	Abstract
Multiplication is commutative	Create arrays using counters and cubes and Numicon.    Pupils should understand that an array can represent different equations and that, as multiplication is commutative, the order of the multiplication does not affect the answer.  	Use representations of arrays to show different calculations and explore commutativity.  	$12 = 3 \times 4$ $12 = 4 \times 3$ Use an array to write multiplication sentences and reinforce repeated addition.  $5 + 5 + 5 = 15$ $3 + 3 + 3 + 3 + 3 = 15$ $5 \times 3 = 15$ $3 \times 5 = 15$
Using the Inverse *This should be taught alongside division, so pupils learn how they work alongside each other.*			2 x 4 = 8 4 x 2 = 8 8 ÷ 2 = 4 8 ÷ 4 = 2 8 = 2 x 4 8 = 4 x 2 2 = 8 ÷ 4 4 = 8÷ 2 Show all 8 related fact family sentences.

Uphill Primary School – Mathematics Calculation Policy (CPA approach)

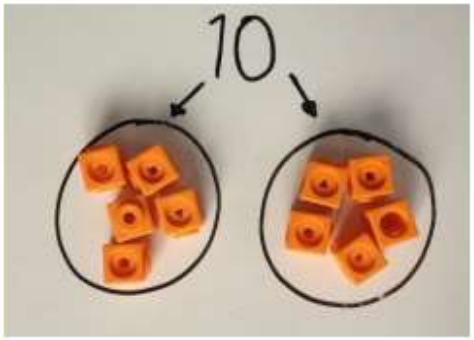
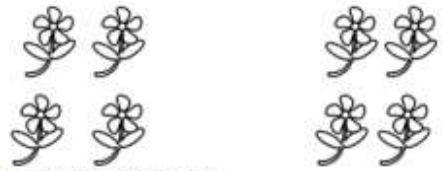
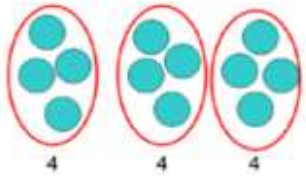
Multiplication

Partition to multiply using Numicon, base 10 or Cuisenaire rods. 4 × 15 	Children to represent the concrete manipulatives pictorially. 	Children to be encouraged to show the steps they have taken. 4 × 15 10 5 10 × 4 = 40 5 × 4 = 20 40 + 20 = 60 A number line can also be used 
Formal column method with place value counters (base 10 can also be used.) 3 × 23 	Children to represent the counters pictorially. 	Children to record what it is they are doing to show understanding. 3 × 23 20 3 3 × 20 = 60 3 × 3 = 9 60 + 9 = 69 23 × 3 69
Formal column method with place value counters. 6 × 23 	Children to represent the counters/base 10, pictorially e.g. the image below. 	Formal written method 6 x 23 = 23 × 6 138 1 1
When children start to multiply 3d × 3d and 4d × 2d etc., they should be confident with the abstract: To get 744 children have solved 6 × 124. To get 2480 they have solved 20 × 124.		1 2 4 × 2 6 7 4 4 2 4 8 0 3 2 2 4 1 1 Answer: 3224

Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Objective & Strategy	Concrete	Pictorial	Abstract
Multiplying decimals up to 2 decimal places by a single digit.			Remind children that the single digit belongs in the units column. Line up the decimal points in the question and the answer. 

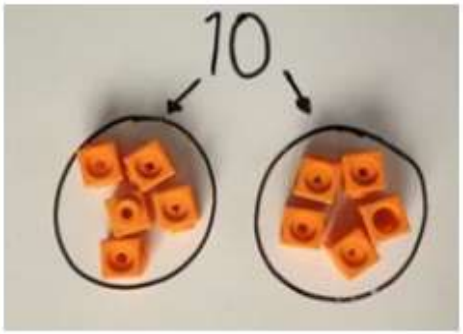
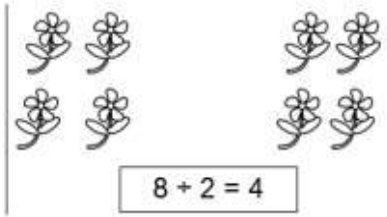
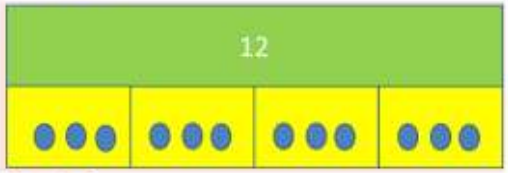
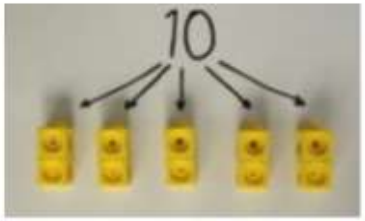
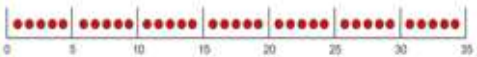
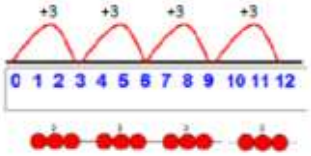
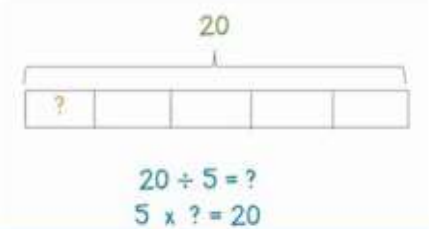
Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Objective & Strategy	Concrete	Pictorial	Abstract
Division as sharing *Use Gordon ITPs for modelling*	   I have 10 cubes, can you share them equally in 2 groups?	Children use pictures or shapes to share quantities.  8 shared between 2 is 4 **Sharing:**  12 shared between 3 is 4	12 shared between 3 is 4

Division

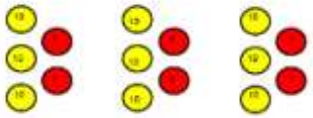
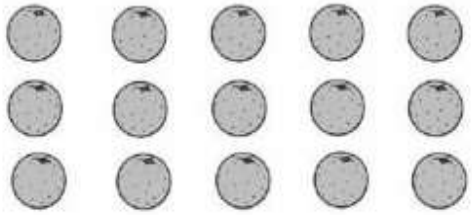
Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Division

Objective & Strategy	Concrete	Pictorial	Abstract
Division as sharing	 I have 10 cubes, can you share them equally in 2 groups?	Children use pictures or shapes to share quantities.  8 ÷ 2 = 4 Children use bar modelling to show and support understanding.  12 ÷ 4 = 3	12 ÷ 3 = 4
Division as grouping	Divide quantities into equal groups. Use cubes, counters, objects or place value counters to aid understanding.  	Use number lines for grouping  12 ÷ 3 = 4 Think of the bar as a whole. Split it into the number of groups you are dividing by and work out how many would be within each group. 	28 ÷ 7 = 4 Divide 28 into 7 groups. How many are in each group?

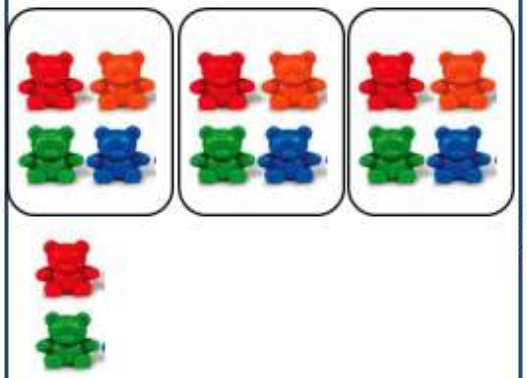
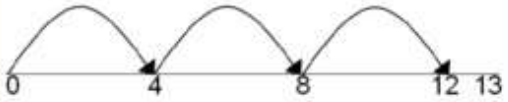
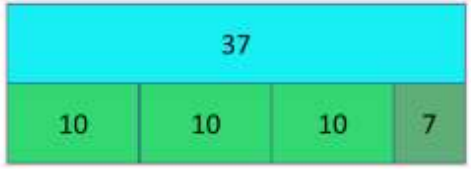
Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Division

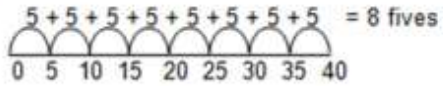
Objective & Strategy	Concrete	Pictorial	Abstract
Division as grouping	Use cubes, counters, objects or place value counters to aid understanding.  24 divided into groups of 6 = 4 96 ÷ 3 = 32 	Continue to use bar modelling to aid solving division problems.  20 ÷ 5 = ? 5 x ? = 20	How many groups of 6 in 24? 24 ÷ 6 = 4
Division with arrays	 Link division to multiplication by creating an array and thinking about the number sentences that can be created. Eg 15 ÷ 3 = 5 5 x 3 = 15 15 ÷ 5 = 3 3 x 5 = 15	Draw an array and use lines to split the array into groups to make multiplication and division sentences 	Find the inverse of multiplication and division sentences by creating eight linking number sentences. 7 x 4 = 28 4 x 7 = 28 28 ÷ 7 = 4 28 ÷ 4 = 7 28 = 7 x 4 28 = 4 x 7 4 = 28 ÷ 7 7 = 28 ÷ 4

Uphill Primary School – Mathematics Calculation Policy (CPA approach)

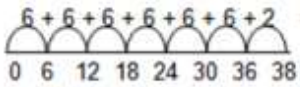
Division

Objective & Strategy	Concrete	Pictorial	Abstract
Division with remainders.	14 ÷ 3 = Divide objects between groups and see how much is left over 	Jump forward in equal jumps on a number line then see how many more you need to jump to find a remainder.  Draw dots and group them to divide an amount and clearly show a remainder.  Use bar models to show division with remainders. 	Complete written divisions and show the remainder using r. 

Example without remainder:
40 ÷ 5
Ask "How many 5s in 40?"



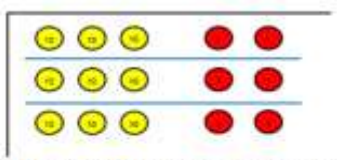
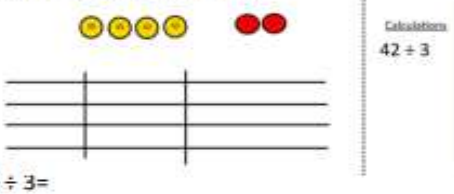
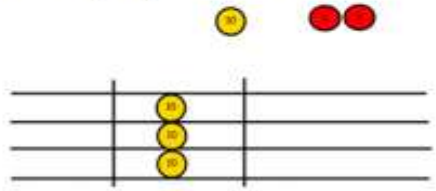
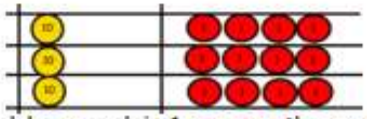
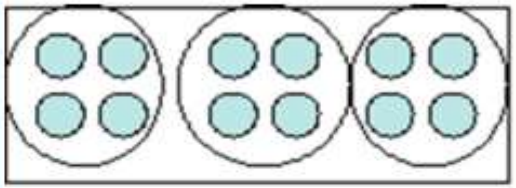
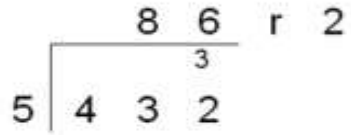
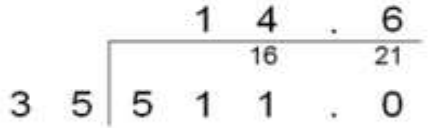
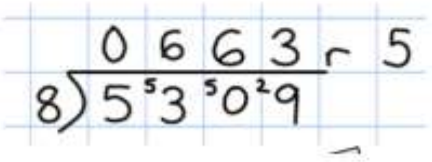
Example with remainder:
38 ÷ 6



For larger numbers, when it becomes inefficient to count in single multiples, bigger jumps can be recorded using known facts.

Uphill Primary School – Mathematics Calculation Policy (CPA approach)

Division

Objective & Strategy	Concrete	Pictorial	Abstract
Divide at least 3 digit numbers by 1 digit. Short Division	96 ÷ 3 Tens Units 3 2 3  Use place value counters to divide using the bus stop method alongside  42 ÷ 3= Start with the biggest place value, we are sharing 40 into three groups. We can put 1 ten in each group and we have 1 ten left over.  We exchange this ten for ten ones and then share the ones equally among the groups.  We look how much in 1 group so the answer is 14.	Students can continue to use drawn diagrams with dots or circles to help them divide numbers into equal groups.  Encourage them to move towards counting in multiples to divide more efficiently.	Begin with divisions that divide equally with no remainder.  Move onto divisions with a remainder.  Finally move into decimal places to divide the total accurately.  

Long Division

Step 1—a remainder in the ones

```
    h  t  o
       0  4  1 R1
    ---------
4 ) 1  6  5
```

4 does not go into 1 (hundred). So combine the 1 hundred with the 6 tens (160).

4 goes into 16 four times.

4 goes into 5 once, leaving a remainder of 1.

```
     th  h  t  o
        0  4  0  0 R7
     ------------
8 )  3  2  0  7
```

8 does not go into 3 of the thousands. So combine the 3 thousands with the 2 hundreds (3,200).

8 goes into 32 four times (3,200 ÷ 8 = 400)
8 goes into 0 zero times (tens).
8 goes into 7 zero times, and leaves a remainder of 7.

Division

Long Division

Step 1 continued...

h	t	o
	6	1
4)	2	4 7
	− 4	
		3

When dividing the ones, 4 goes into 7 one time. Multiply 1 × 4 = 4, write that four under the 7, and subract. This finds us the remainder of 3.

Check: 4 × 61 + 3 = 247

th	h	t	o
	4	0	2
4)	1	6	0 9
			− 8
			1

When dividing the ones, 4 goes into 9 two times. Multiply 2 × 4 = 8, write that eight under the 9, and subract. This finds us the remainder of 1.

Check: 4 × 402 + 1 = 1,609

Division

Long Division

Step 2—a remainder in the tens

1. Divide.	2. Multiply & subtract.	3. Drop down the next digit.
t o 2 2)5 8	t o 2 2)5 8 -4 1	t o 2 9 2)5 8 -4 ↓ 1 8
Two goes into 5 two times, or 5 tens ÷ 2 = 2 whole tens -- but there is a remainder!	To find it, multiply 2 × 2 = 4, write that 4 under the five, and subtract to find the remainder of 1 ten.	Next, drop down the 8 of the ones next to the leftover 1 ten. You combine the remainder ten with 8 ones, and get 18.

1. Divide.	2. Multiply & subtract.	3. Drop down the next digit.
t o 2 9 2)5 8 -4 1 8	t o 2 9 2)5 8 -4 1 8 -1 8 0	t o 2 9 2)5 8 -4 1 8 -1 8 0
Divide 2 into 18. Place 9 into the quotient.	Multiply 9 × 2 = 18, write that 18 under the 18, and subtract.	The division is over since there are no more digits in the dividend. The quotient is 29.

Division

Long Division

Step 2—a remainder in any of the place values

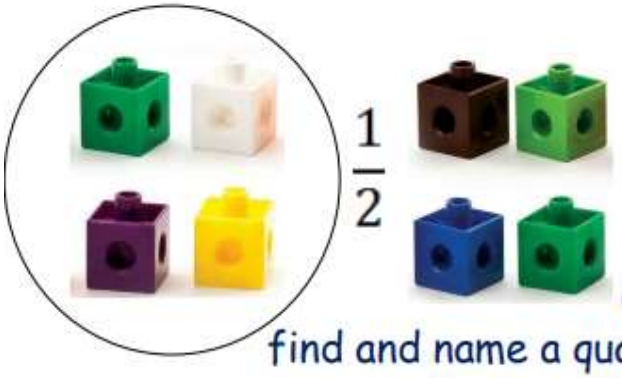
1. Divide.	2. Multiply & subtract.	3. Drop down the next digit.
h t o 1 2)2 7 8	h t o 1 2)2 7 8 -2 0	h t o 1 8 2)2 7 8 -2 ↓ 0 7
Two goes into 2 one time, or 2 hundreds ÷ 2 = 1 hundred.	Multiply 1 × 2 = 2, write that 2 under the two, and subtract to find the remainder of zero.	Next, drop down the 7 of the tens next to the zero.
Divide.	**Multiply & subtract.**	**Drop down the next digit.**
h t o 1 3 2)2 7 8 -2 0 7	h t o 1 3 2)2 7 8 -2 0 7 - 6 1	h t o 1 3 2)2 7 8 -2 0 7 - 6 1 8
Divide 2 into 7. Place 3 into the quotient.	Multiply 3 × 2 = 6, write that 6 under the 7, and subtract to find the remainder of 1 ten.	Next, drop down the 8 of the ones next to the 1 leftover ten.
1. Divide.	**2. Multiply & subtract.**	**3. Drop down the next digit.**
h t o 1 3 9 2)2 7 8 -2 0 7 - 6 1 8	h t o 1 3 9 2)2 7 8 -2 0 7 - 6 1 8 -1 8 0	h t o 1 3 9 2)2 7 8 -2 0 7 - 6 1 8 -1 8 0
Divide 2 into 18. Place 9 into the quotient.	Multiply 9 × 2 = 18, write that 18 under the 18, and subtract to find the remainder of zero.	There are no more digits to drop down. The quotient is 139.

Division

Fractions

Recognise, find and name a half as one of two equal parts of an object, shape or quantity.

Concrete



$\frac{1}{2}$

Pictorial

A whole apple

1

Half an apple

$\frac{1}{2}$

Abstract

Half of 10 = ☐

Half of 8 = ☐

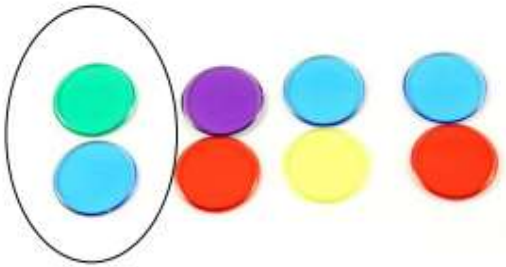
of 14 = ☐

$\frac{1}{2}$

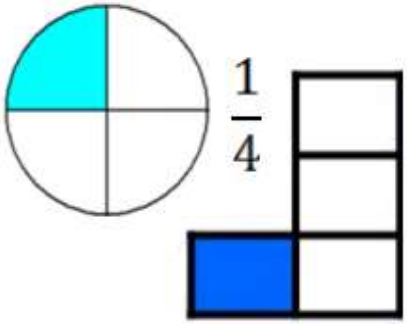
Recognise, find and name a quarter as one four equal parts of an object, shape or quantity.

Concrete

$\frac{1}{4}$



Pictorial



$\frac{1}{4}$

Abstract

A quarter of 20 = ☐

A quarter of 12 = ☐

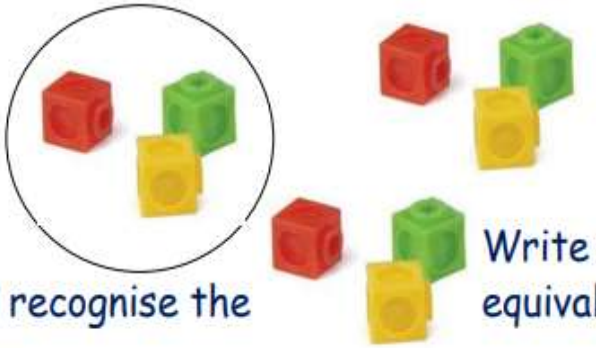
of 8 = ☐

$\frac{1}{4}$

Fractions

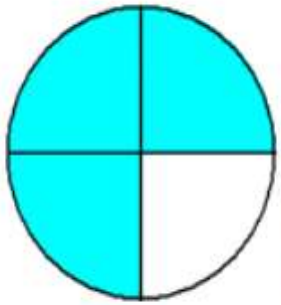
Recognise, find and name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity.

Concrete



Write simple and recognise the 1/2.

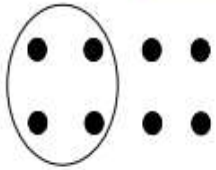
Pictorial



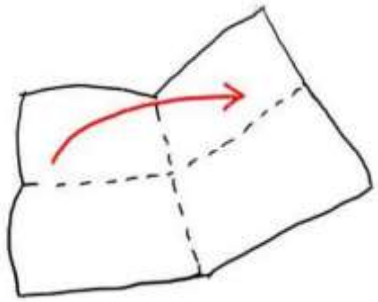
fractions of 2/4 and

Abstract

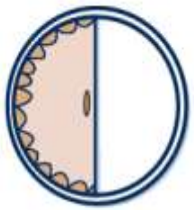
$\frac{2}{4}$ of 8 = □

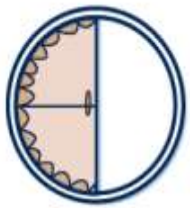


Concrete



Pictorial

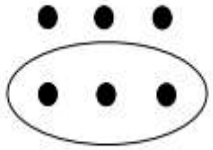




I have $\frac{1}{2}$ a pie *You have $\frac{2}{4}$ of a pie*

Abstract

$\frac{1}{2}$ of 6 = □

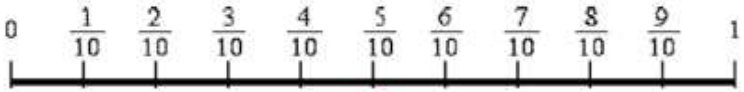


Year 3

Fractions

Count up and down in tenths: recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by ten.

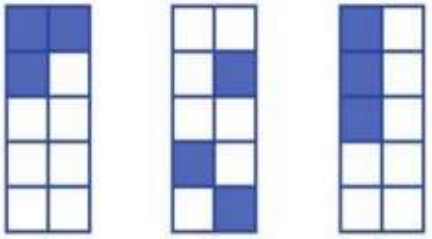
Concrete



Recognise, find and write fractions of a discrete set of objects: unit fractions and use and non-unit fractions as numbers.

$\frac{1}{2}$

Pictorial



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

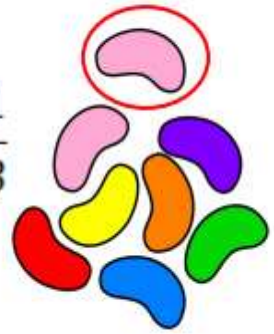
Abstract

$\frac{1}{10}$ of 6 = 0.6
because
6 ÷ 10 = 0.6

$\frac{1}{10}$ of 7 = 0.7
because
7 ÷ 10 = 0.7

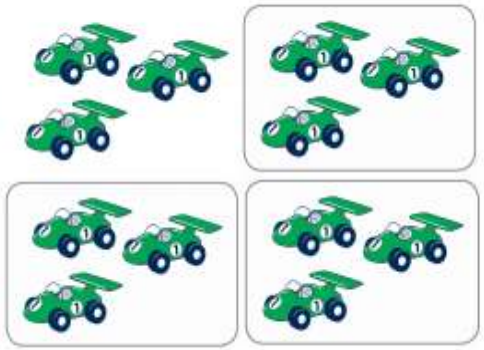
Concrete

$\frac{1}{8}$



Pictorial

$\frac{3}{4}$



Abstract

$\frac{1}{5}$ of 15 sweets = 3
because 15 ÷ 5 = 3

$\frac{2}{5}$ of 15 sweets = 6
because 15 ÷ 5 = 3 and 3 x 2 = 6

Fractions

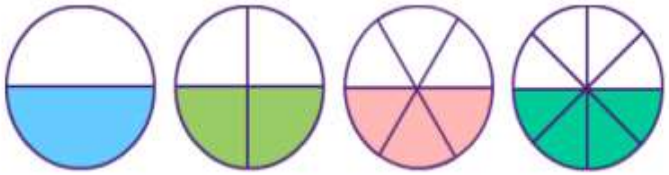
Year 3

Recognise and show, using diagrams, equivalent fractions with small denominators.

Concrete

two halves $\frac{2}{2}$ four quarters $\frac{4}{4}$

Pictorial



$\frac{1}{2}$ $\frac{2}{4}$ $\frac{3}{6}$ $\frac{4}{8}$

Abstract

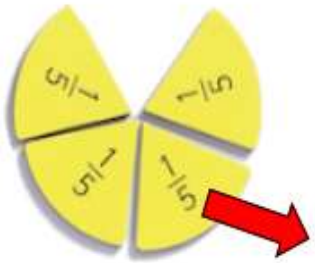
Sam says that two quarters is the same as one half.

Is he correct?

How do you know?

Add and sub-tract fractions with the same denominator.

Concrete



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

Pictorial

$\frac{1}{5}$ + $\frac{3}{5}$ = $\frac{4}{5}$

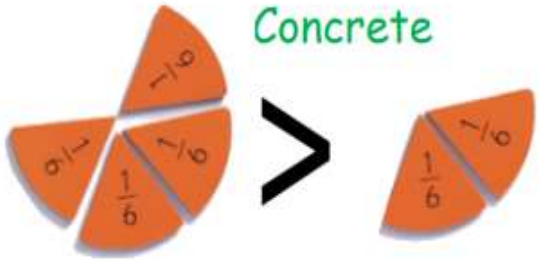
Abstract

$\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$

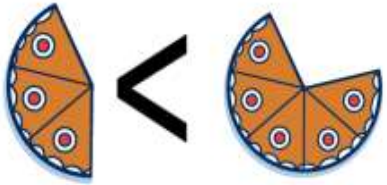
$\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$

pare with and order unit fractions the same denominators.

Concrete



Pictorial



Abstract

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

Year 4

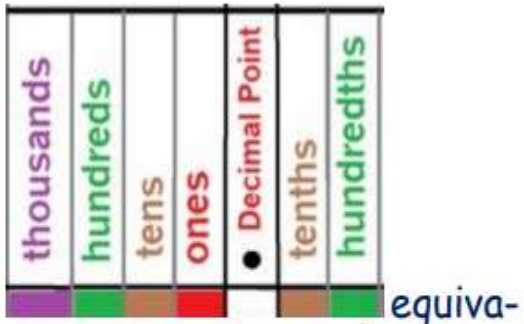
Fractions

Count up and down in hundredths: recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10.

Concrete

Recognise and write decimal equivalents to $\frac{3}{100}$ 1/2, 1/4 $\frac{7}{100}$ and 3/4.

Pictorial

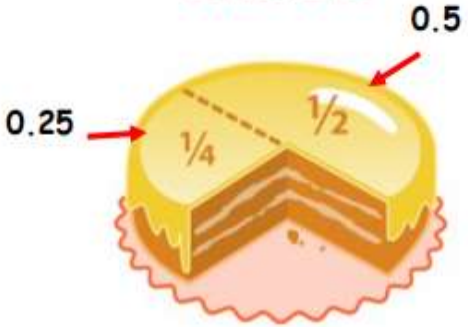


Abstract

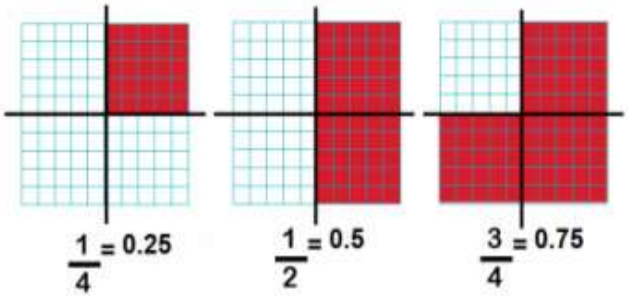
$\frac{1}{100}$ of 60 = 0.6
because 60 ÷ 100 = 0.6

$\frac{1}{10}$ of 70 = 0.7
so $\frac{1}{100}$ of 70 = 0.07

Concrete



Pictorial



Abstract

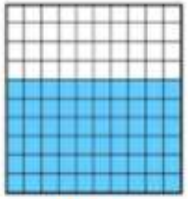
$\frac{1}{2}$ = 0.5
$\frac{1}{4}$ = 0.25
$\frac{3}{4}$ = 0.75

Year 4 Fractions

Concrete

Pictorial

0.6
six tenths



0.60
sixty hundredths

Abstract

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

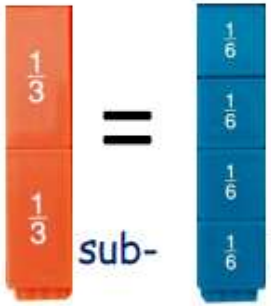
$\frac{3}{10} = 0.3$

$\frac{5}{10} = \frac{1}{2} = 0.5$

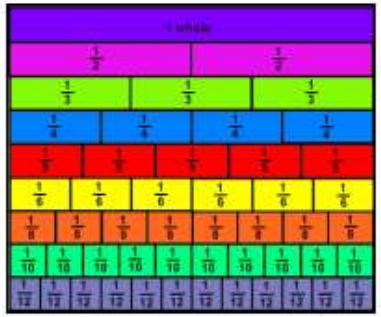
$\frac{8}{100} = 0.08$

Rec- $\frac{1}{10}$ of the chocolate bar = 0.1 ognise six tenths sixty hundredths and show, using diagrams, families of common equivalents.

Concrete



Pictorial



Abstract

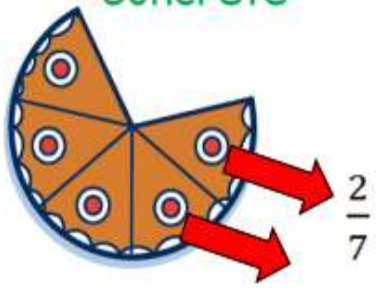
$\frac{2}{3} = \frac{4}{6}$

$\frac{3}{5} = \frac{6}{10}$

$\frac{2}{12} = \frac{1}{6}$

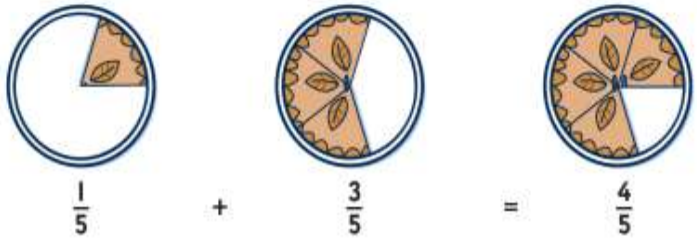
Add and subtract fractions with the same denominator.

Concrete



$\frac{2}{7}$

Pictorial



$\frac{1}{5}$ + $\frac{3}{5}$ = $\frac{4}{5}$

Abstract

Sam eats $\frac{2}{7}$ of a whole pizza. How much does he have left?

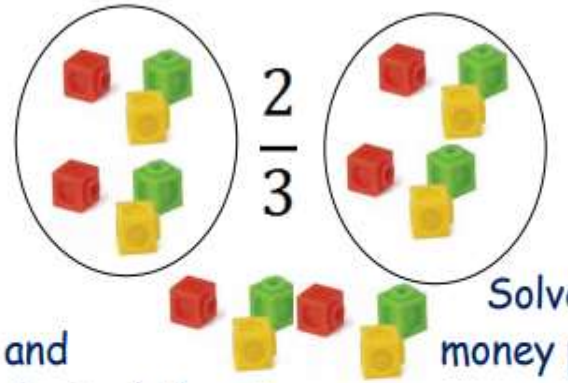
Lucy and Ben both eat $\frac{3}{8}$ of a cake. How much have they eat altogether?

Year 4

Fractions

Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

Concrete



Pictorial

Abstract

$\frac{2}{3}$ of £18

£18 ÷ 3 = £6

£6 x 2 = £12

Solve simple measure and money problems involving fractions and decimals to two decimal places.

Concrete

Pictorial

U	.	t	h
Units	Decimal Point	Tenths	Hundredths
	.		

Abstract

100cm = 1m

50cm = $\frac{1}{2}$ = 0.5m

25cm = $\frac{1}{4}$ = 0.25m

10cm = $\frac{1}{10}$ = 0.1m

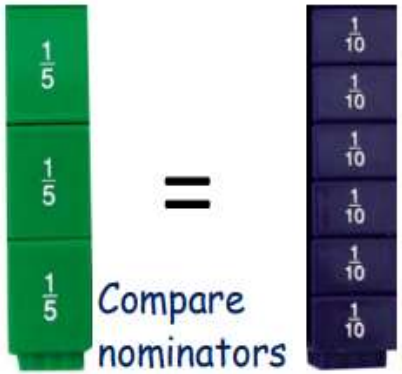
30cm = $\frac{3}{10}$ = 0.3m

Year 5

Fractions

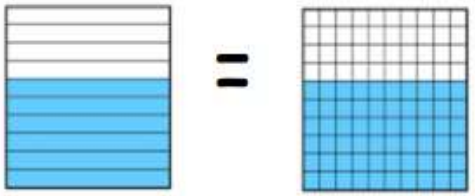
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.

Concrete



Compare and order fractions whose de-nominators are all multi-ples of the same number.

Pictorial



$$\frac{6}{10} = \frac{60}{100}$$

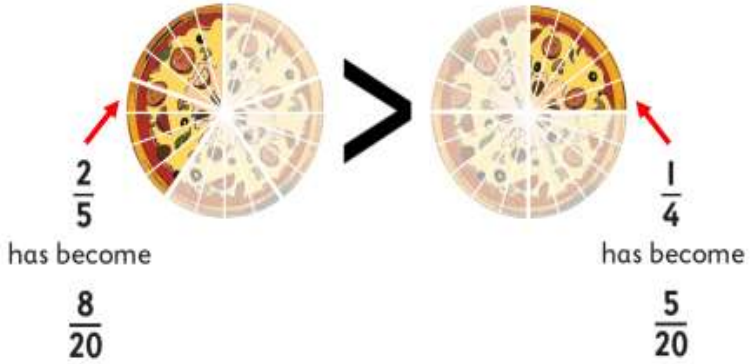
Abstract

$$\frac{3}{5} = \frac{6}{10} = \frac{60}{100}$$

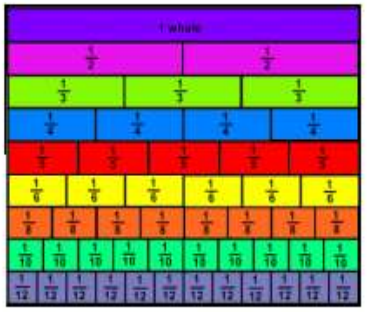
$$\frac{3}{4} = \frac{75}{100}$$

$$\frac{1}{5} = \frac{2}{10} = \frac{20}{100}$$

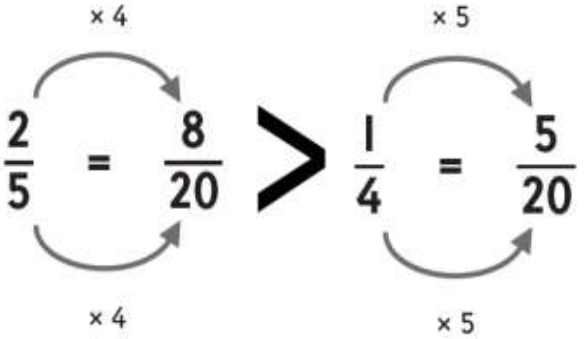
Concrete



Pictorial



Abstract

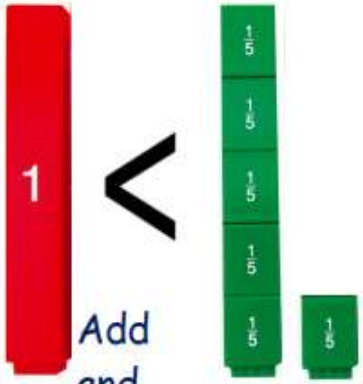


Year 5

Fractions

Recognise mixed numbers and improper fractions. Convert from one form to the other and write mathematical statements >1 as a mixed number.

Concrete



Pictorial

$\frac{3}{5} + \frac{4}{5} = \frac{7}{5} = 1\frac{2}{5}$

Abstract

$\frac{7}{2} = 3\frac{1}{2}$

because 7 ÷ 2 = 3 with 1 half left over

$2\frac{1}{3} = \frac{7}{3}$

because 2 x 3 = 6 with 1 third left to add

Add and subtract fractions with the same denominators and denominators that are multiples of the same numbers.

Concrete

So,

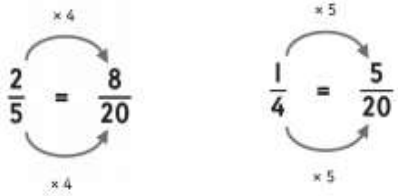
$\frac{8}{20} + \frac{5}{20} = \frac{13}{20}$

$\frac{2}{5} + \frac{1}{4} = \frac{13}{20}$

Pictorial

Abstract

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



So,

$\frac{8}{20} - \frac{5}{20} = \frac{3}{20}$

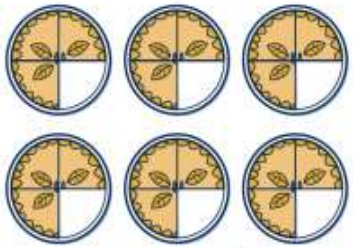
$\frac{2}{5} - \frac{1}{4} = \frac{3}{20}$

Year 5

Fractions

Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

Concrete



6 lots of $\frac{3}{4}$

Pictorial

$4\frac{2}{4}$ altogether

Abstract

Multiply a proper fraction by a whole numb

$$\frac{3}{4} \times 6 = \frac{18}{4}$$

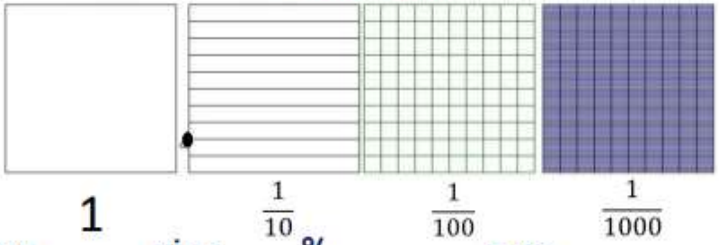
Change to a mixed number:

$$\frac{18}{4} = 4\frac{2}{4}$$

Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

Concrete

Pictorial



Abstract

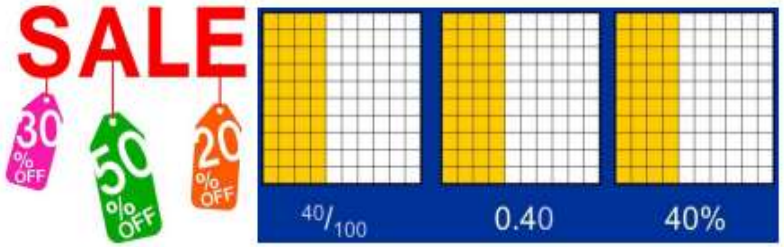
67.153

How many thousandths does this number have? How many more thousandths do you need to add to make 67.16?

Recog- nise % sym- bol and understand the meaning: write % as a fraction, decimal and percentage.

Concrete

Pictorial



Abstract

$$\frac{4}{10} = 40\% = 0.4$$

$$\frac{32}{100} = 32\% = 0.32$$

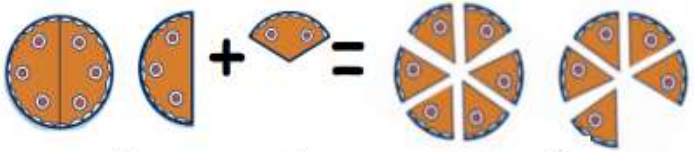
$$\frac{75}{100} = 75\% = 0.75$$

$$\frac{2}{25} = \frac{8}{100} = 8\% = 0.08$$

Fractions

Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions.

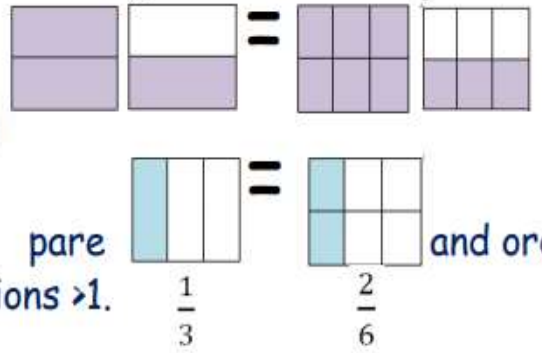
Concrete



$1\frac{1}{2}$ Com- $\frac{1}{3}$ $1\frac{5}{6}$

tions including

Pi



pare and order fractions >1.

Abstract

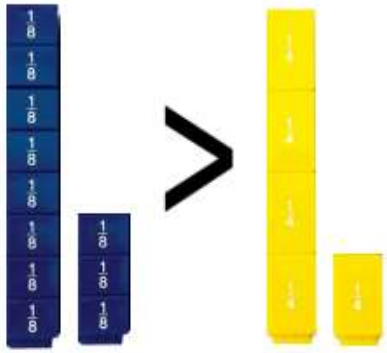
$$1\frac{1}{2} + \frac{1}{3} = 1\frac{5}{6}$$

because $1\frac{1}{2} = \frac{3}{2}$ frac-

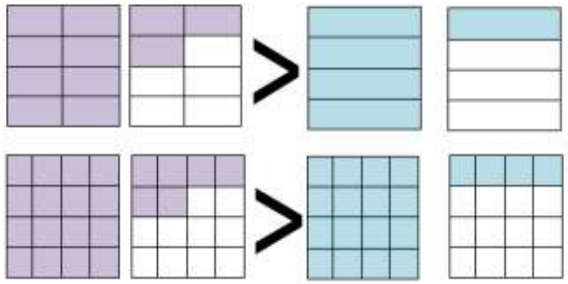
$\frac{3}{2} = \frac{9}{6}$ and $\frac{1}{3} = \frac{2}{6}$

so $\frac{9}{6} + \frac{2}{6} = \frac{11}{6} = 1\frac{5}{6}$

Concrete



Pictorial



Abstract

Which is greater?

$\frac{2}{8} < \frac{6}{16}$

Ordering from smallest to largest by using equivalent fractions:

$\frac{5}{12}, \frac{2}{3}, \frac{5}{6}$

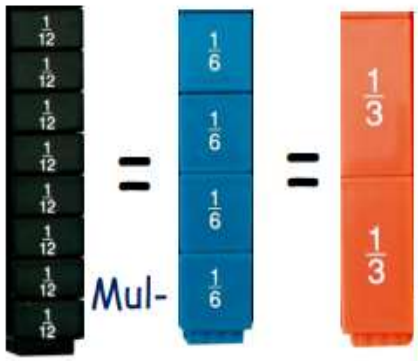
$\frac{5}{12}, \frac{8}{12}, \frac{10}{12}$

Year 6

Fractions

Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.

Concrete

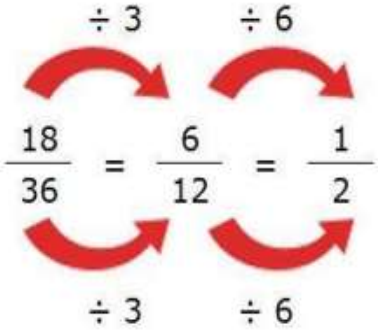


Multiply simple proper fracting the answer in its simplest form.

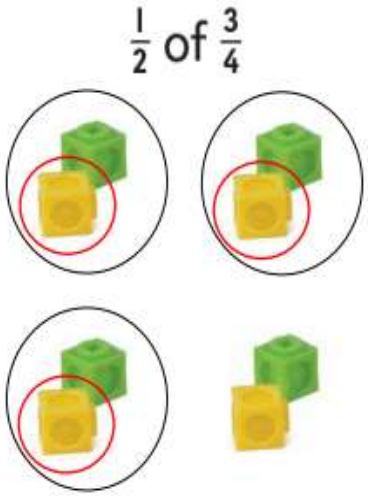
Pictorial

pairs of tions, writ-

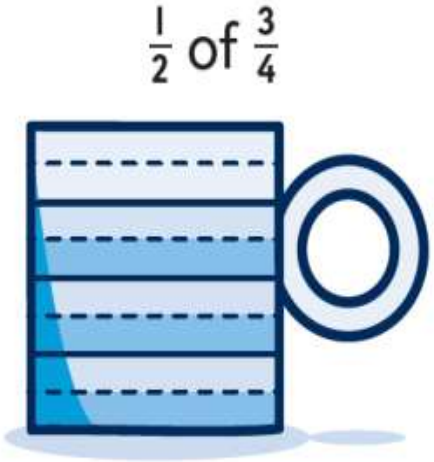
Abstract



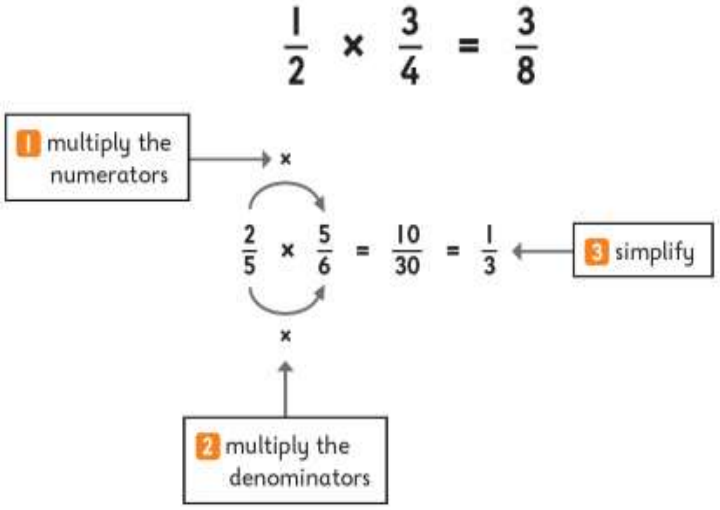
Concrete



Pictorial



Abstract



Year 6

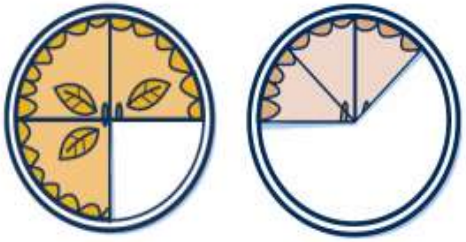
Fractions

Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.

Concrete

Pictorial

Which would you prefer 75% or $\frac{3}{8}$ of a pie?



75% $\frac{3}{8}$

Divide proper fractions by whole numbers.

Abstract

John scored $\frac{40}{80}$ in his spelling test and Hannah scored 40%. Who scored more?

John = $\frac{40}{80}$ = 50%

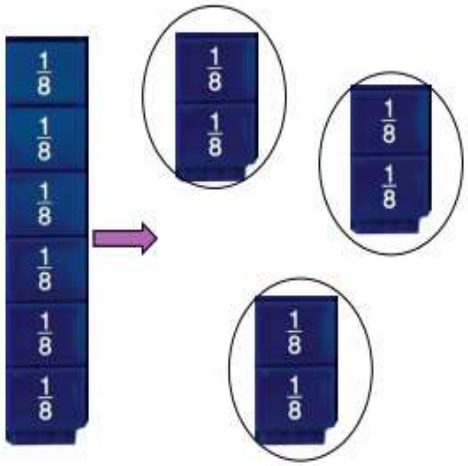
Hannah = 40%

One paving slab is 0.3m long and another is $\frac{1}{4}$ of a metre. Which is longer?

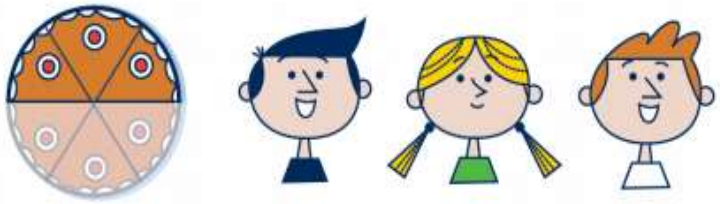
$\frac{1}{4}$ = 0.25m

0.3m is larger than $\frac{1}{4}$ 0.25m

Concrete



Pictorial



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

Abstract

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

Keep it, change it, flip it!

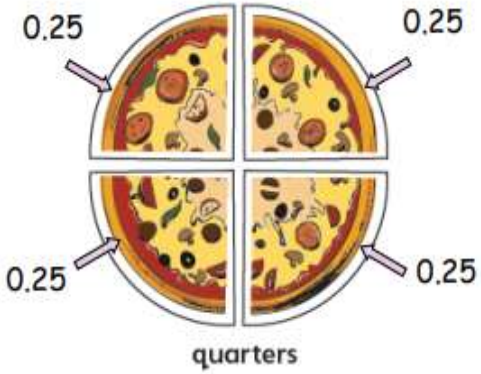
$\frac{1}{2} \times \frac{1}{3} = \frac{1}{6}$

Year 6

Fractions

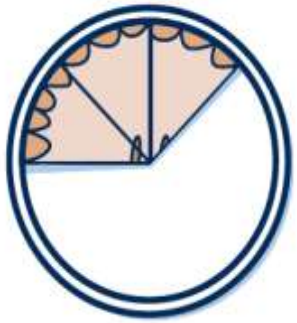
Associate fractions with division and calculate decimal fraction equivalents.

Concrete



Pictorial

3 slices of pie 'out of' 8



$\frac{3}{8}$

Abstract

$\frac{3}{8}$

3 'out of' 8 is the same as 3 'divided by' 8

$3 \div 8 = 0{\cdot}375$

So $\frac{3}{8} = 0{\cdot}375$