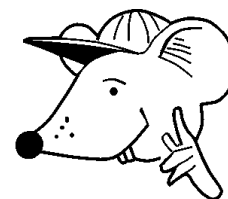


MATHEMATICS



N.S. Yr. 3 P.21

Recognise simple fractions and equivalence.

Equipment

Counters, beads, cubes etc useful for dividing into quarters, halves and thirds.
Crayons.

MathSphere

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Concepts

In year 3 children will be introduced to the fraction $\frac{1}{10}$ (one tenth), as well as fractions such as $\frac{1}{3}$ (one third) and $\frac{3}{4}$ (three quarters), where the numerator (top number) is more than one.

The equivalence of fractions begins to take on more importance and children will be expected to know the following:

$\frac{2}{4}$ is the same as $\frac{1}{2}$

$\frac{5}{10}$ is the same as $\frac{1}{2}$

$\frac{4}{4}$ is the same as one whole one

$\frac{10}{10}$ is the same as 1 whole one

When showing equivalence and doing these types of sums, it is very helpful if the child can also use practical apparatus. Multilink is very useful here, or Lego could also serve the purpose, where a shape is made up of ten equal pieces.

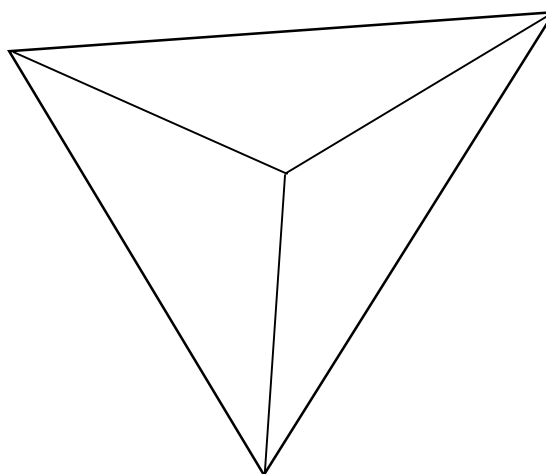
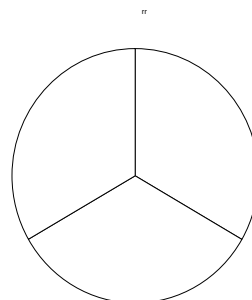
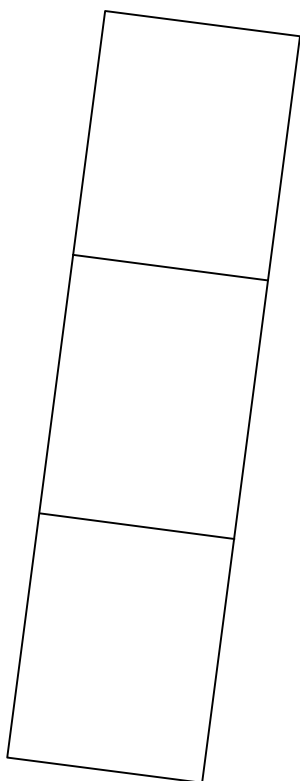
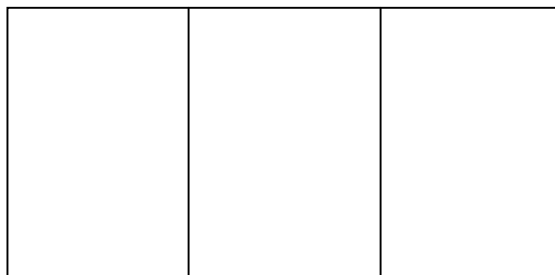
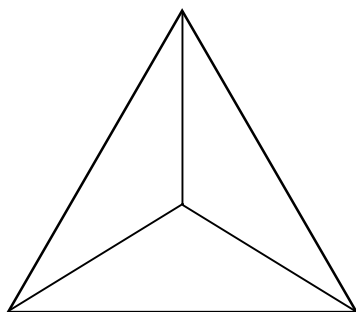
For teachers, some of these pages are especially useful as OHP sheets, with children coming out to colour different fractions of shapes.

Eg divide the lego into a 4 part piece and a 6 part piece. There are ten parts altogether so each part is called a tenth.

Put the pieces together again - so $\frac{4}{10} + \frac{6}{10} = 1$ whole.

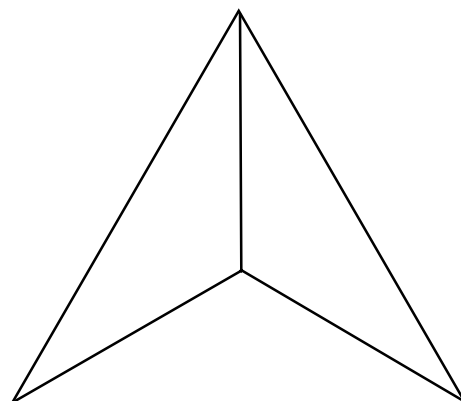
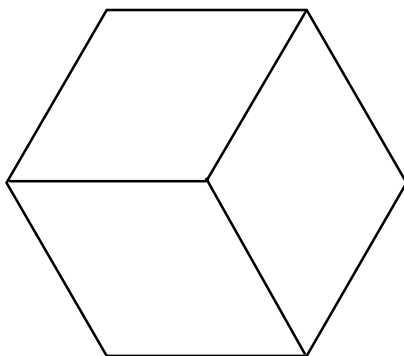
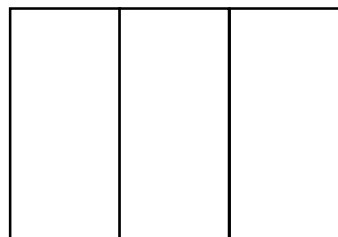
Thirds

Shade in $\frac{1}{3}$ of each of these shapes:

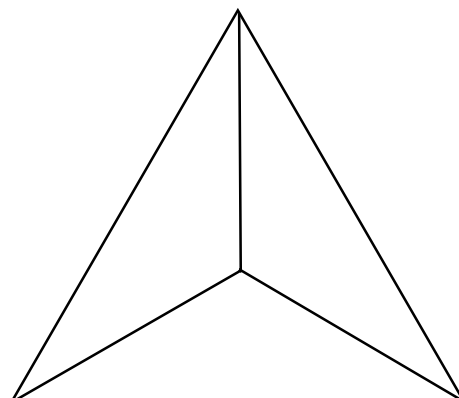
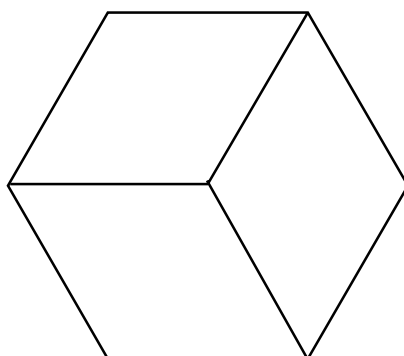
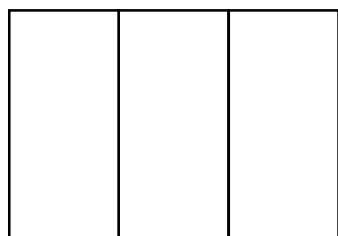


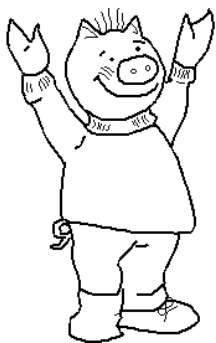
One third, two thirds, three thirds

Colour one third ($\frac{1}{3}$) of these shapes:



Now colour two thirds of the same shapes:

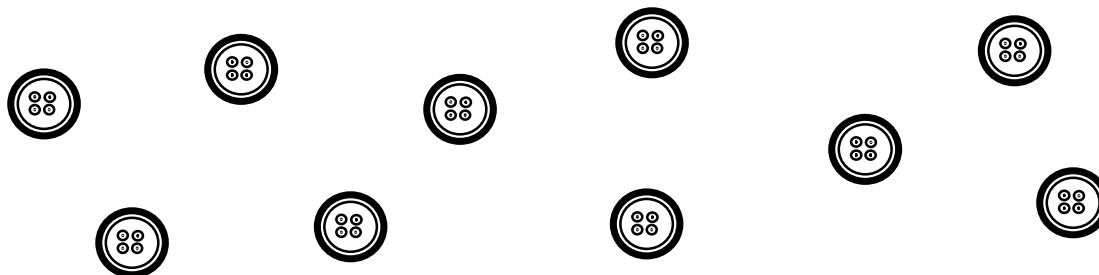




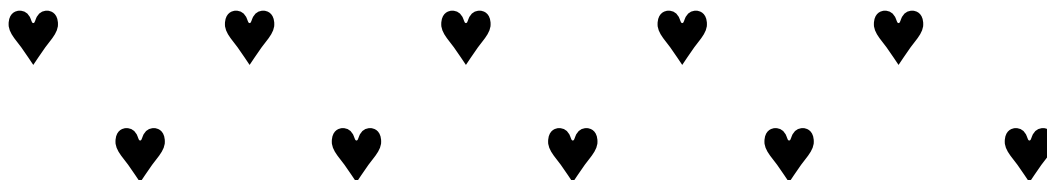
Fractions

Draw a line round half of the buttons, hearts and arrows.

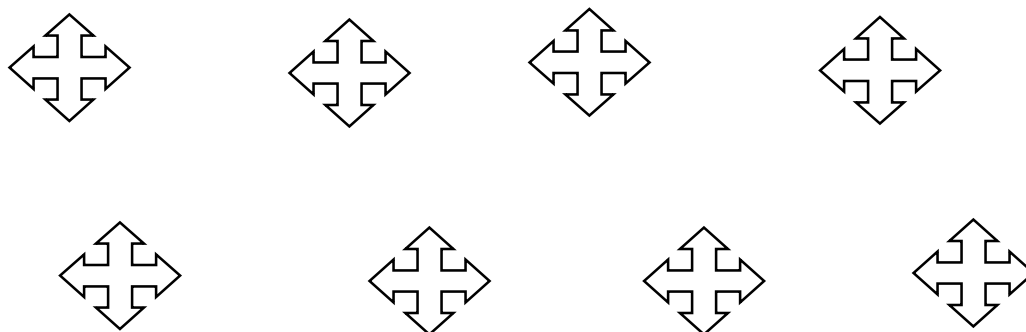
1.



2.



3.



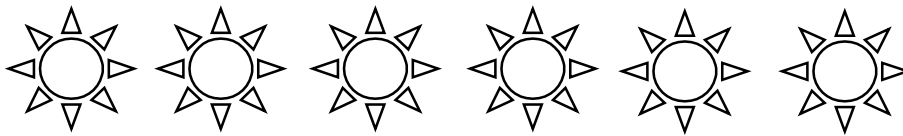
Finding half

Find half of these sets. Put your answer in the box.

1.



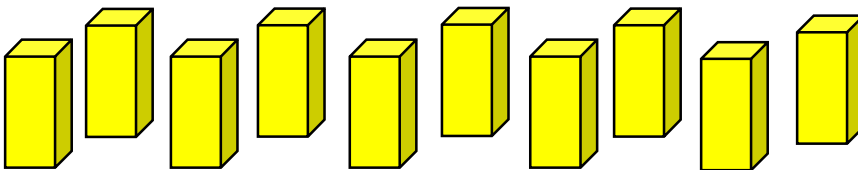
2.



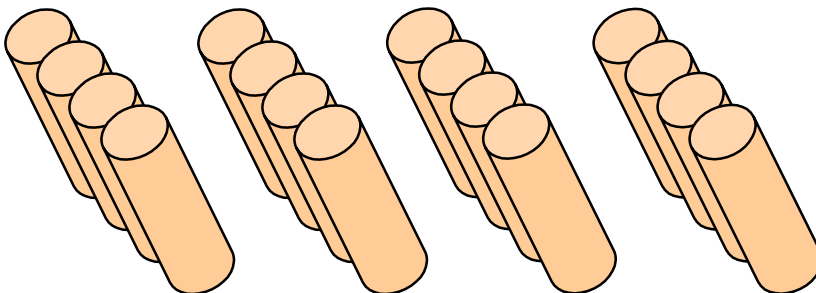
3.



4.



5.



Investigate Halves

Find out which numbers between 10 and 30 can be divided exactly in half.
Fill the chart in below. I have started it for you.

<u>Number</u>	<u>Half the number</u>	<u>Divide exactly</u>
10	5	yes
11	$5\frac{1}{2}$	no
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

What do you notice?

One tenth can be written like this:

$$\frac{1}{10}$$

It means a whole one has been cut into ten equal pieces and you have one of the pieces.



Colour in one tenth of these shapes:

1.									
----	--	--	--	--	--	--	--	--	--

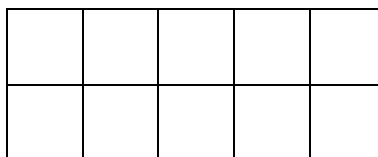
2.				

3.				

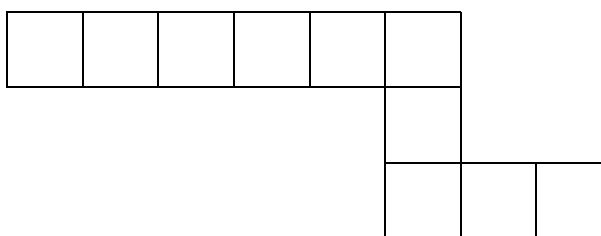
4.				

More tenths

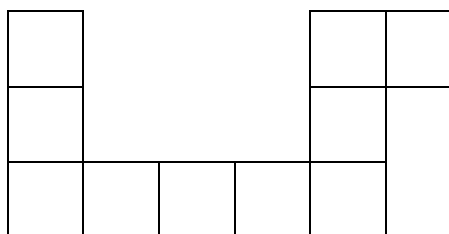
1. Colour three tenths of this shape:



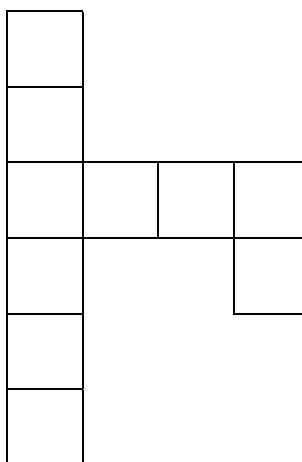
2. Colour five tenths of this shape:



3. Colour nine tenths of this shape:

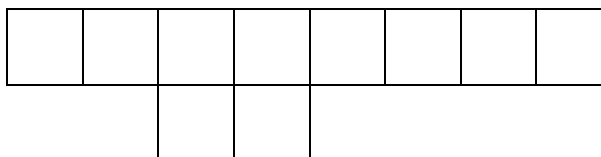


4. Colour five tenths of this shape:

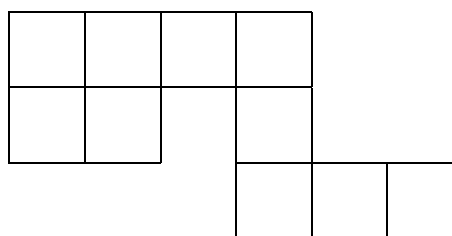


More tenths

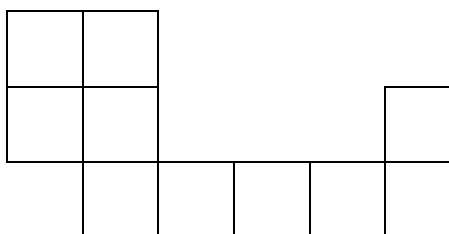
1. Colour four tenths of this shape:



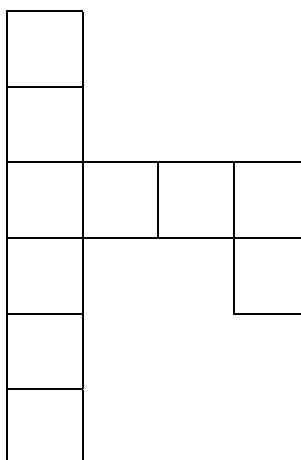
2. Colour six tenths of this shape:



3. Colour nine tenths of this shape:

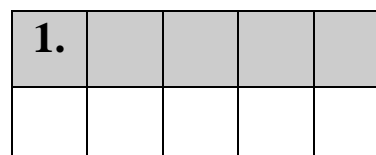


4. Colour seven tenths of this shape:

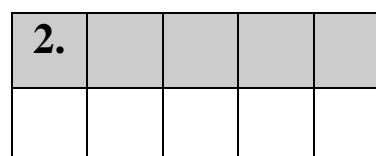


Five tenths equals a half

A half of shape 1 has been shaded in.



Five tenths of shape 2 has been shaded in.

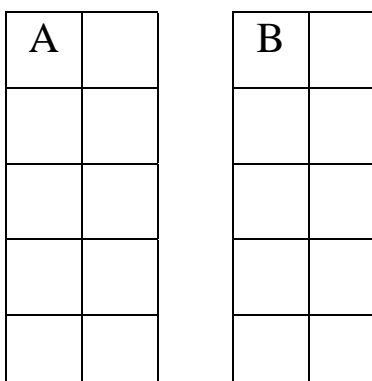


The same amount has been shaded in on each shape.

Shade in half of shape A.

Shade in five tenths of shape B

What do you notice?



Shade in half shape C



Shade in $\frac{5}{10}$ of shape D



What do you notice?

Now then, can you answer
the questions below?
If you can you are a real
whizz at fractions!



1. How many halves are there in a whole one?

2. How many quarters are there in a whole one?

3. How many tenths are there in a whole one?

4. How many quarters are there in a half?

5. How many tenths are there in a half?

I reckon you deserve a prize if
you got these right - give
yourself a pat on the back - not
too hard, mind!!



Answers**Page 6**

1. 4 2. 3 3. 4 4. 5 5. 8

Page 7

<u>Number</u>	<u>Half the number</u>	<u>Divide exactly</u>
10	5	yes
11	$5\frac{1}{2}$	no
12	6	yes
13	$6\frac{1}{2}$	no
14	7	yes
15	$7\frac{1}{2}$	no
16	8	yes
17	$8\frac{1}{2}$	no
18	9	yes
19	$9\frac{1}{2}$	no
20	10	yes
21	$10\frac{1}{2}$	no
22	11	yes
23	$11\frac{1}{2}$	no
24	12	yes
25	$12\frac{1}{2}$	no
26	13	yes
27	$13\frac{1}{2}$	no
28	14	yes
29	$14\frac{1}{2}$	no
30	15	yes

Page 12

1. 2 2. 4 3. 10 4. 2 5. 5