



MATHEMATICS



N.S. Yr. 3 P.23

Recognise and find simple fractions

Equipment

Paper, pencil, ruler
Scissors
Crayons etc

MathSphere

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Concepts

Having recognised that two halves make a whole and that two quarters make a half, the next fraction to explore is the tenth.

Shapes can be divided into ten parts and each part recognised as one tenth. By colouring it can be shown that five tenths is the same as a half and that ten tenths is the same as a whole.

Number lines continue to be important as simple fractions can be shown on them.

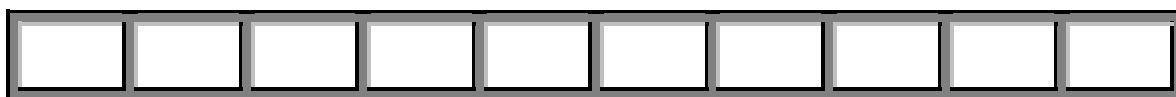
Children are expected to be able to count on or back in steps of a half or a quarter and be able to say what is half way between, say, $3\frac{1}{2}$ and 4.

Estimating using halves and quarters is also introduced in year three; for example, how much of a cake is left, how full is a bottle etc. Plenty of examples of these should be carried out on a practical basis – beads, buttons, filling jars etc, emphasising the language of ‘about a quarter / half / three quarters and half way between’.

Tenths



Below is a very thin bar of chocolate,
divided into ten pieces.
Each piece is one tenth.
Colour one tenth.

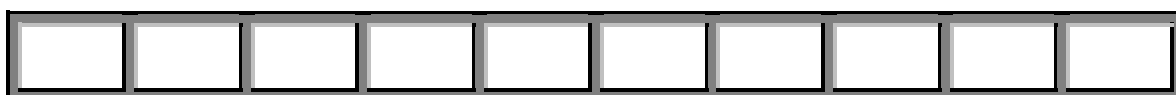


One tenth can be written as $\frac{1}{10}$

Now colour one tenth of this bar, but choose a different tenth to colour.



How about being really greedy and colouring two tenths of this bar....



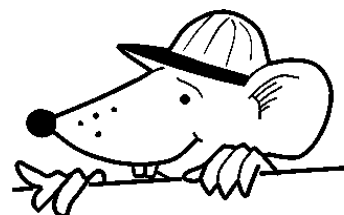
And three tenths of this bar!!! Yummy!



Writing tenths

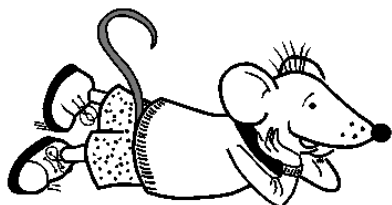
Remember, one tenth is written like this:

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



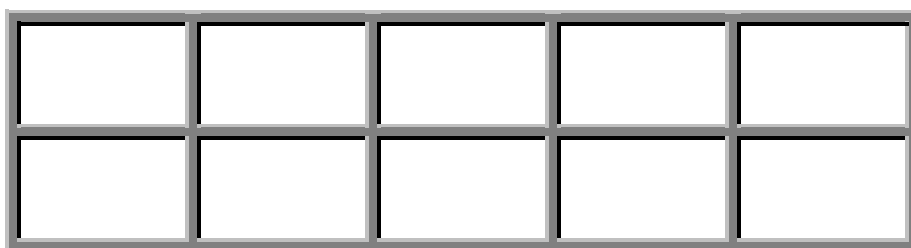
Try filling this chart in with the missing tenths in words and fractions

One tenth	
	$\frac{2}{10}$
Three tenths	
	$\frac{4}{10}$
Five tenths	
Six tenths	
Seven tenths	
	$\frac{8}{10}$
Nine tenths	

Tenths

Did you know that
five tenths is the same
as a half?

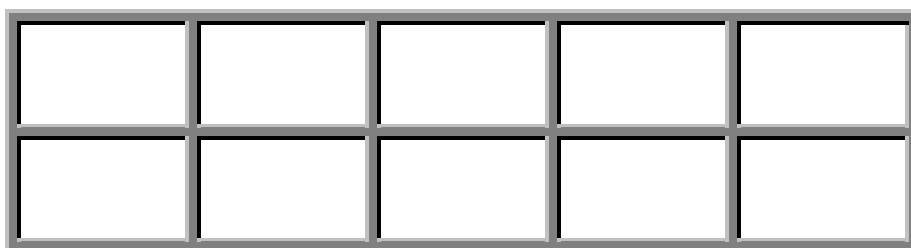
Take a look at this bar of choccy:



Colour the top five parts.

Notice how this is the same as colouring a half of it.

Find another way of colouring five parts.



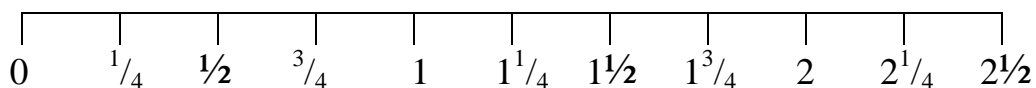
Fill in the missing numbers:

tenths = a half

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

Five tenths

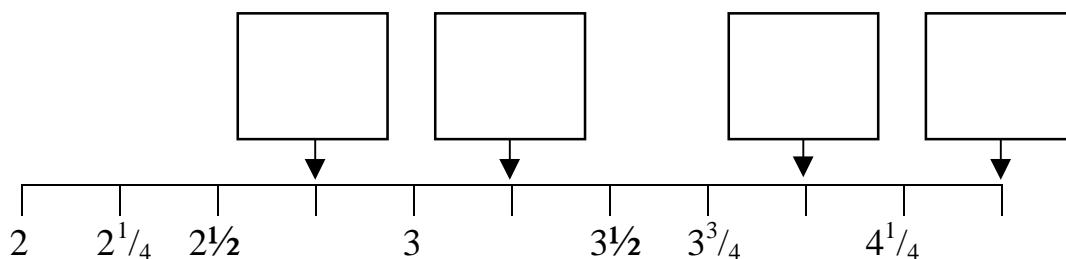
How many different ways
can you find to colour **five
tenths** of these shapes – you
might need more than one
sheet!!

Counting in quarters

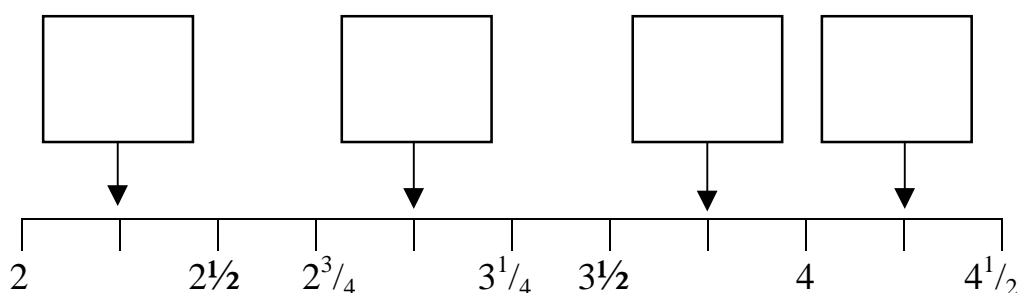
Look at the number line above. See how easy it is to count in quarters.

Now try and write what numbers the arrows are pointing at on these number lines:

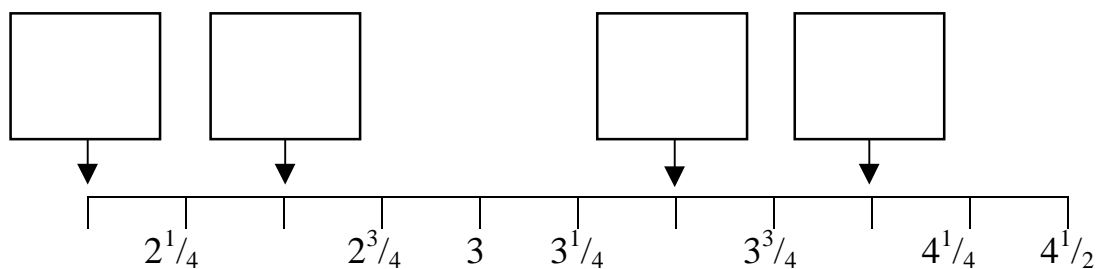
1.

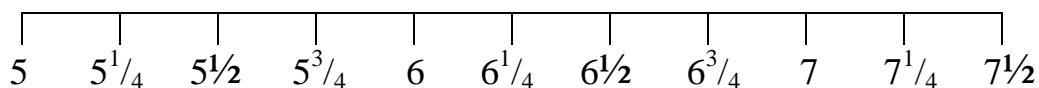


2.



3.

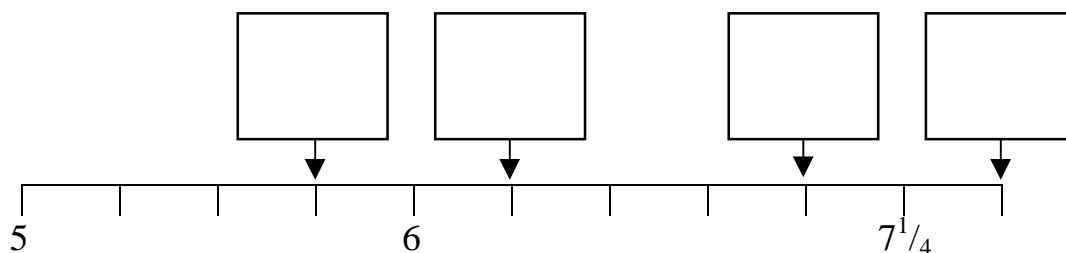


Counting in quarters

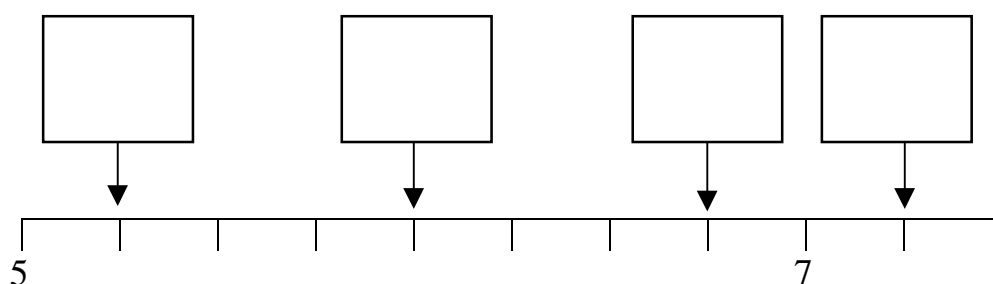
Look at the number line above. Try counting in quarters from 5 to $7\frac{1}{2}$.

Now try and write what numbers the arrows are pointing at on these number lines:

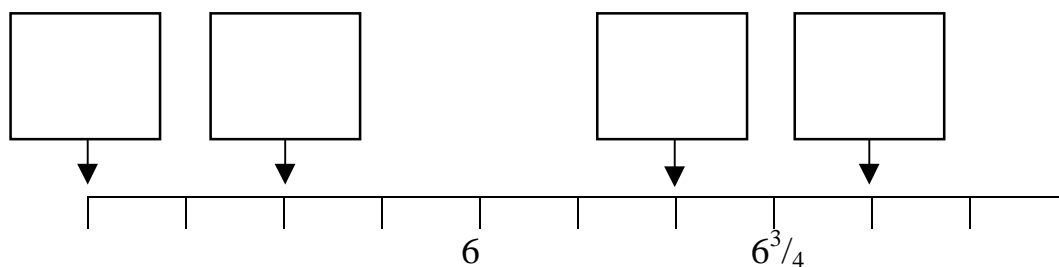
1.



2.



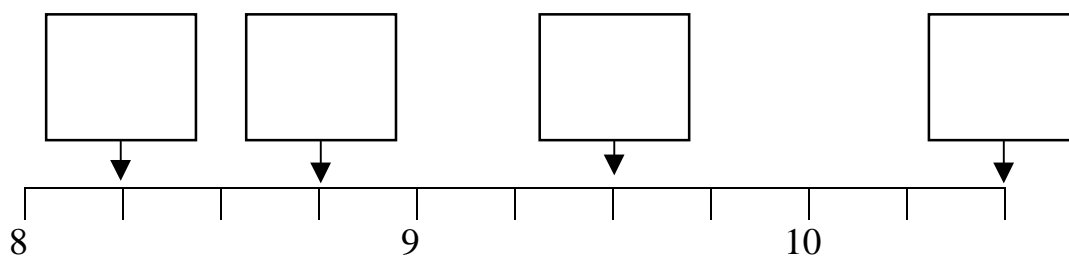
3.



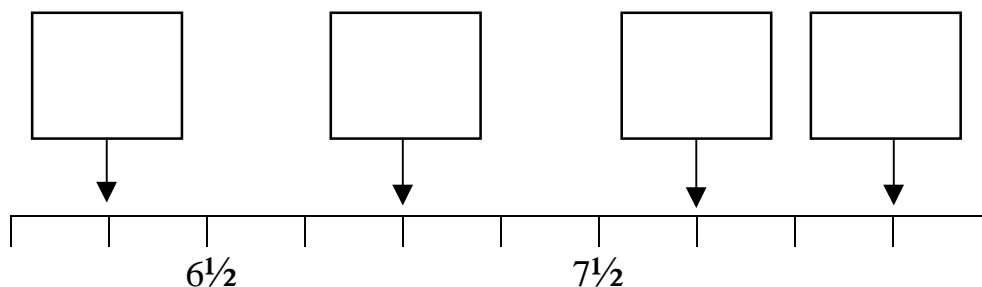
Counting in quarters

Hello again! Try to fill in the numbers on the lines below. They are all going up in quarters.

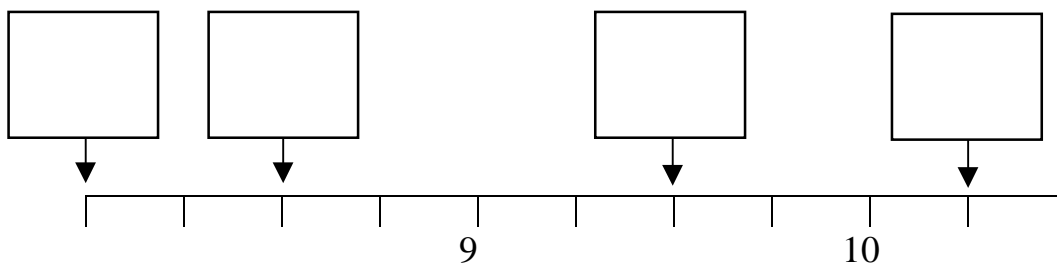
1.



2.



3.



Half way there!

Half way between 3 and 4 is $3\frac{1}{2}$

Half way between $3\frac{1}{2}$ and 4 is $3\frac{3}{4}$

1. What is half way between 4 and 5 ?

2. What is half way between 6 and 7 ?

3. What is half way between 2 and 3 ?

4. What is half way between $4\frac{1}{2}$ and 5 ?

5. What is half way between $8\frac{1}{2}$ and 9 ?

6. What is half way between 5 and $5\frac{1}{2}$?

7. What is half way between 2 and $2\frac{1}{2}$?

8. What is half way between 7 and $7\frac{1}{2}$?

Half way there!

Try some of these half way questions.

I bet you're more than half way in getting these right!

1. What is half way between 8 and 9 ?

2. What is half way between 3 and 4 ?

3. What is half way between 5 and 6 ?

4. What is half way between $7\frac{1}{2}$ and 8 ?

5. What is half way between $3\frac{1}{2}$ and 4 ?

6. What is half way between 6 and $6\frac{1}{2}$?

7. What is half way between 9 and $9\frac{1}{2}$?

8. What is half way between 2 and $2\frac{1}{2}$?

Answers**Page 7**

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|----|----------------|----------------|----------------|----------------|
| 1. | $2\frac{3}{4}$ | $3\frac{1}{4}$ | 4 | $4\frac{1}{2}$ |
| 2. | $2\frac{1}{4}$ | 3 | $3\frac{3}{4}$ | $4\frac{1}{4}$ |
| 3. | 2 | $2\frac{1}{2}$ | $3\frac{1}{2}$ | 4 |

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|----|----------------|----------------|----------------|----------------|
| 1. | $5\frac{3}{4}$ | $6\frac{1}{4}$ | 7 | $7\frac{1}{2}$ |
| 2. | $5\frac{1}{4}$ | 6 | $6\frac{3}{4}$ | $7\frac{1}{4}$ |
| 3. | 5 | $5\frac{1}{2}$ | $6\frac{1}{2}$ | 7 |

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|----|----------------|----------------|----------------|-----------------|
| 1. | $8\frac{1}{4}$ | $8\frac{3}{4}$ | $9\frac{1}{2}$ | $10\frac{1}{2}$ |
| 2. | $6\frac{1}{4}$ | 7 | $7\frac{3}{4}$ | $8\frac{1}{4}$ |
| 3. | 8 | $8\frac{1}{2}$ | $9\frac{1}{2}$ | $10\frac{1}{4}$ |

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- | | | | | | | | | | | | | | | | |
|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|
| 1. | $4\frac{1}{2}$ | 2. | $6\frac{1}{2}$ | 3. | $2\frac{1}{2}$ | 4. | $4\frac{3}{4}$ | 5. | $8\frac{3}{4}$ | 6. | $5\frac{1}{4}$ | 7. | $2\frac{1}{4}$ | 8. | $7\frac{1}{4}$ |
|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|

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|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|
| 1. | $8\frac{1}{2}$ | 2. | $3\frac{1}{2}$ | 3. | $5\frac{1}{2}$ | 4. | $7\frac{3}{4}$ | 5. | $3\frac{3}{4}$ | 6. | $6\frac{1}{4}$ | 7. | $9\frac{1}{4}$ | 8. | $2\frac{1}{4}$ |
|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|----|----------------|