Division
EYFS

Sharing

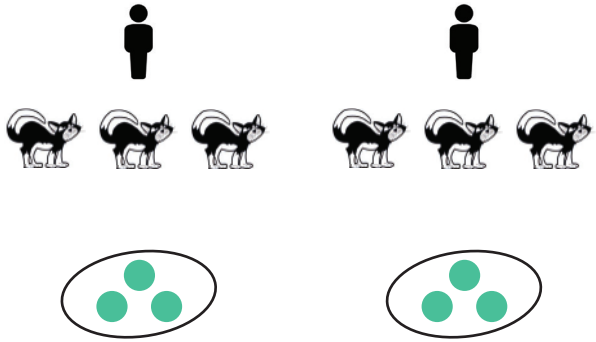
There are 6 cats.

Share them equally between 2 people.
How many do they have each?

6 shared into 2 equal groups

1 for you, 1 for you, 1 for you...

Represent the problem

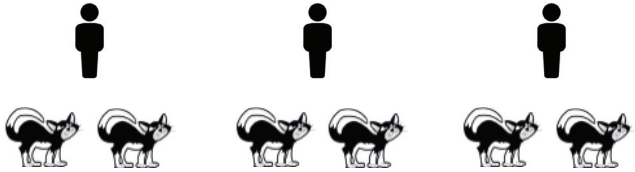


Grouping

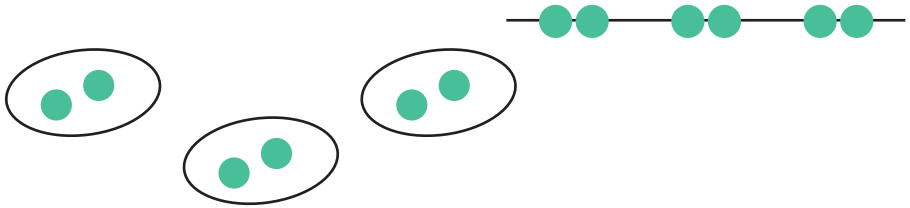
There are 6 cats.

Each person owns 2 cats.
How many people are there?

How many groups of 2 can be made with 6?



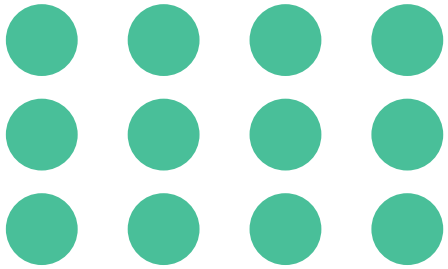
Grab a group of 2,
grab a group of 2...

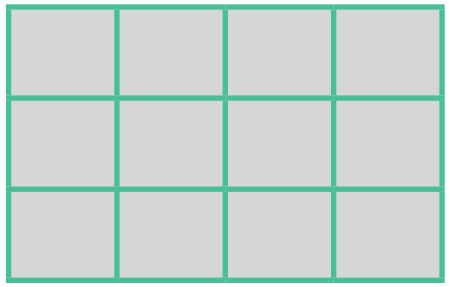


Division
YEAR 1

$12 \div 3 = 4$

12 can be described as
3 columns of four
or 4 rows of three





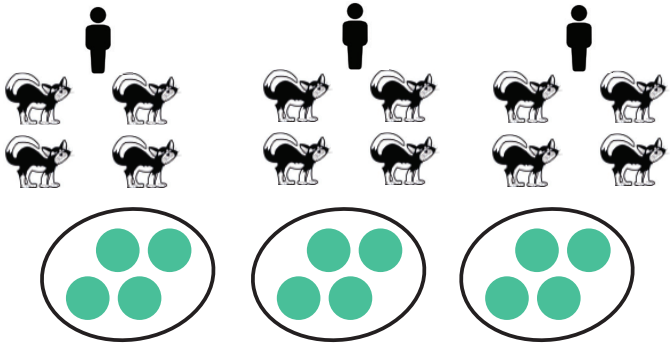
Sharing

There are 12 cats.

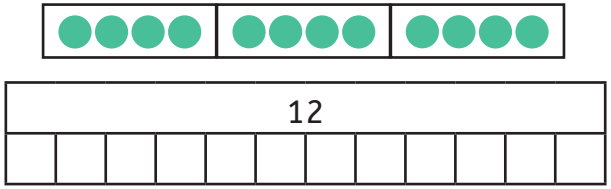
Three pople each have the same number of cats.
How many do they have each?

12 shared into 3 equal groups

1 for you, 1 for you, 1 for you...



Bar model

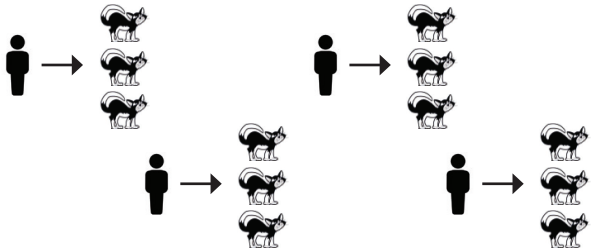


Grouping

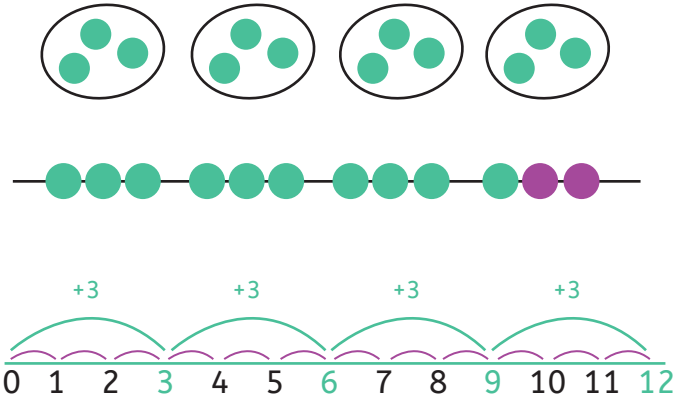
There are 12 cats.

Each person owns 3 cats.
How many people are there?

How many groups of 3
are there in 12?



Grab a group of 3,
grab a group of 3...

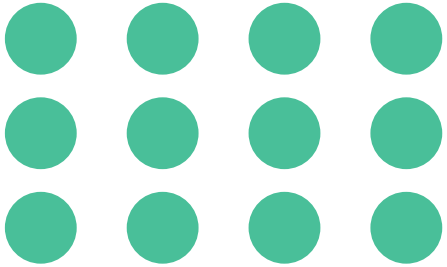


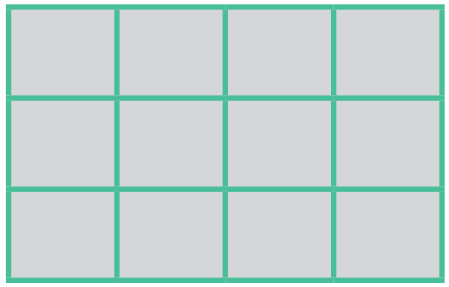
Division
YEAR 2

12 ÷ 3 = 4

Recall and use 2x, 5x and 10x tables

12 can be described as
3 columns of four
or 4 rows of three





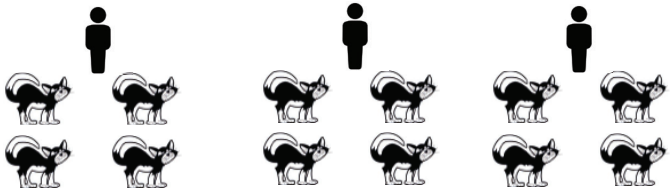
Sharing

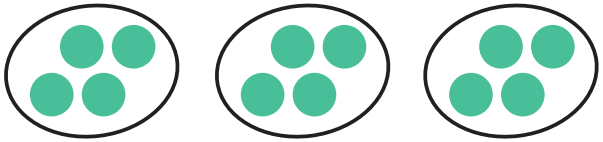
There are 12 cats.

Three pople each have the same number of cats.
How many do they have each?

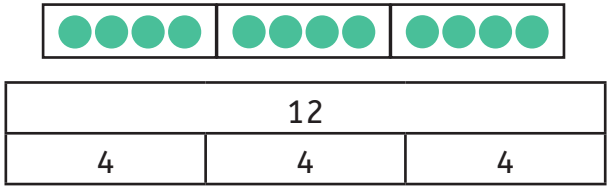
12 shared into 3 equal groups

1 for you, 1 for you, 1 for you...





Bar model



Link to fractions.
One third of 12 is 4.

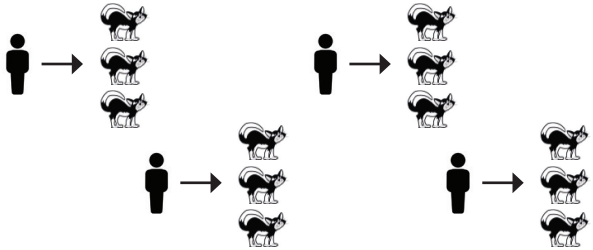
Grouping

There are 12 cats.

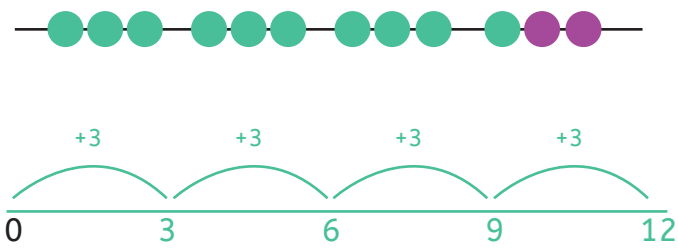
Each person owns 3 cats.
How many people are there?

How many groups of 3
are there in 12?

Grab a group of 3,
grab a group of 3...



If I know 3 x 4 = 12
then I know 12 ÷ 3 = 4



Division
YEAR 3

Known facts:
Use 2x, 5 , 10x (year 2)
3x, 4x, 8x (year 3) multiplication tables to derive division facts

24 ÷ 4
Use known facts and place value

240 is ten times greater than 24

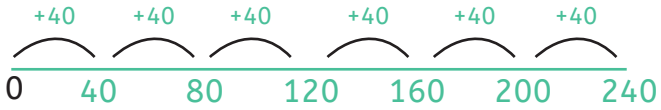
24 ÷ 4 = 6
240 ÷ 40 = 6
240 ÷ 4 = 60

24 biscuits shared between 4 people means they will get 6 biscuits each.
If there are 10 times as many people and 10 times as many biscuits, how many biscuits each now?

240 ÷ 40
Repeated addition

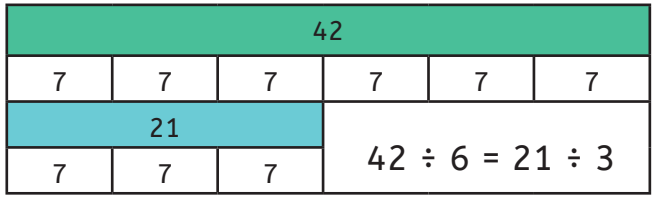
How many 40s are there in 240?

240 ÷ 40 = 6
How many steps of 40 make 240?

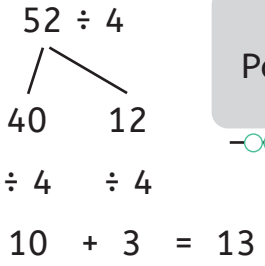


42 ÷ 6
Double and halve

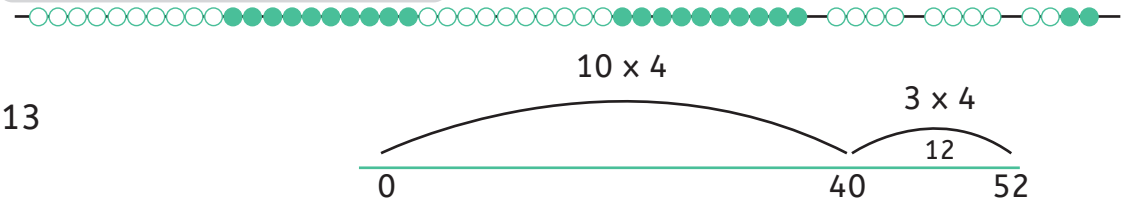
If there are half as many biscuits and hals as many people...



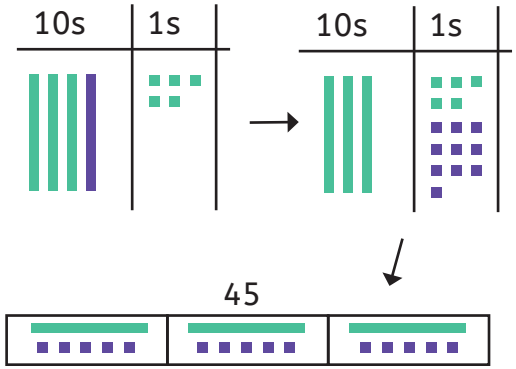
52 ÷ 4
Partition and recombine



Ten lots
and the rest



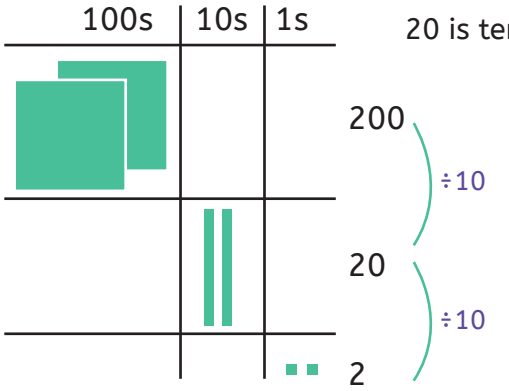
45 ÷ 3
Sharing equally



Ten for you,
ten for you,
ten for you...

Link to fractions

200 ÷ 10
Divide by 10



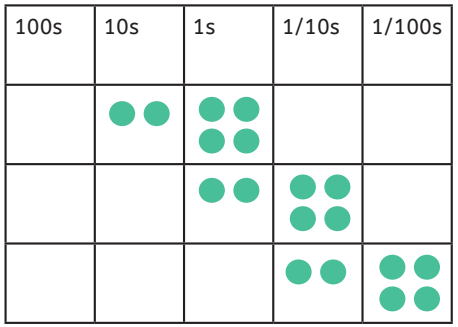
200 ÷ 10 = 20 so
20 is ten times smaller than 200

A tenth of 1 is 1 tenth
so 1 ÷ 10 = $\frac{1}{10}$

Division
YEAR 4

Known facts:
Use recall of all multiplication tables up to 12x12 to derive division facts

24 ÷ 100
Divide by 10, 100



24
÷10
2.4
÷10
0.24
÷100

24 ÷ 4
Use known facts and place value

240 is ten times greater than 24

24 ÷ 4 = 6
240 ÷ 40 = 6
2400 ÷ 400 = 6

$2400 \div 400 = \frac{24 \times 100}{4 \times 100}$

$\frac{24}{4} = 6$

24 biscuits shared between 4 people means they will get 6 biscuits each.
If there are 100 times as many people and 100 times as many biscuits, how many biscuits each now?

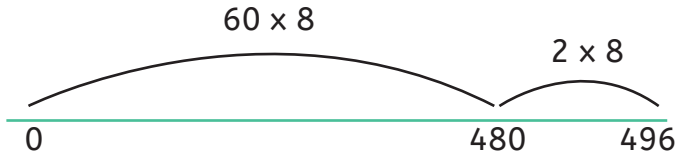
496 ÷ 8
Partition and recombine

496 ÷ 8

480 16

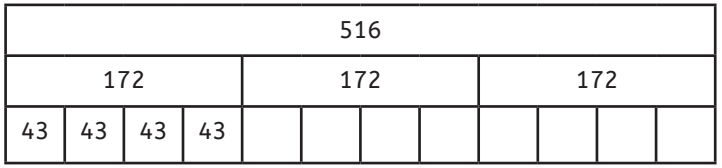
÷ 8 ÷ 8

60 + 2 = 62



516 ÷ 12
Using factors

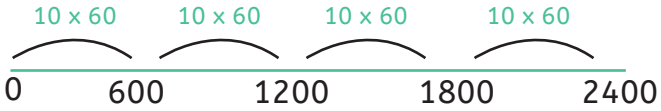
516 ÷ 3 ÷ 4



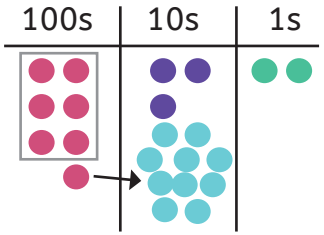
2400 ÷ 60
Use known facts and place value

60 is ten times greater than 6

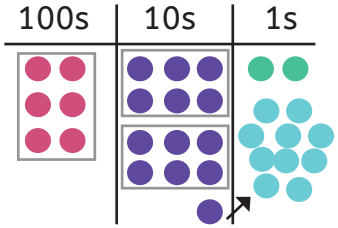
2400 ÷ 60 = 40
How many steps of 60 make 2400?



732 ÷ 6
Formal written method



$$6\overline{)7^{1}3\ 2}\quad 1$$



$$6\overline{)7^{1}3^{1}2}\quad 1\ 2\ 2$$

Division
YEAR 5

Known facts:
Use recall of all multiplication tables up to 12x12 to derive division facts

Include calculations where remainders occur

24 ÷ 4
Use known facts and place value

24,000 is a thousand times greater than 24

24 ÷ 4 = 6
240 ÷ 40 = 6
2400 ÷ 400 = 6
24,000 ÷ 4000 = 6

$24{,}000 \div 400 = \frac{24 \times 1000}{4 \times 100}$

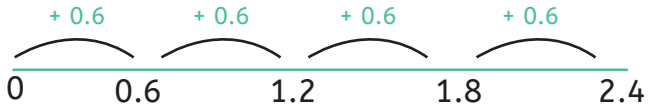
$\frac{240}{4} = 60$

24 biscuits shared between 4 people means they will get 6 biscuits each.
If there are 1000 times as many people and 1000 times as many biscuits, how many biscuits each now?

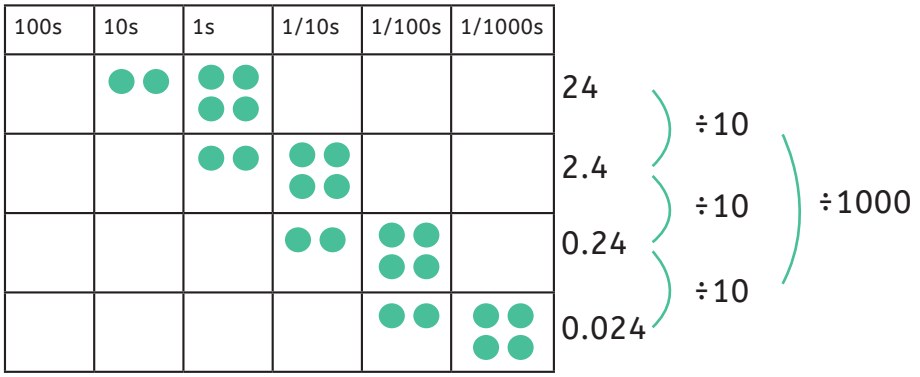
2.4 ÷ 0.6
Use known facts and place value

0.6 is ten times smaller than 6

2.4 ÷ 0.6 = 4
How many steps of 0.6 make 2.4?



24 ÷ 1000
Divide by 10, 100, 1000



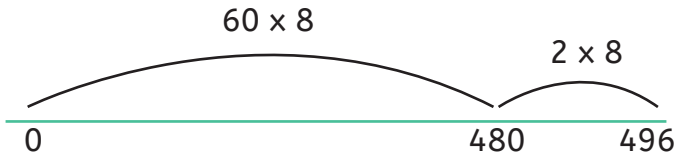
496 ÷ 8
Partition and recombine

496 ÷ 8

480 16

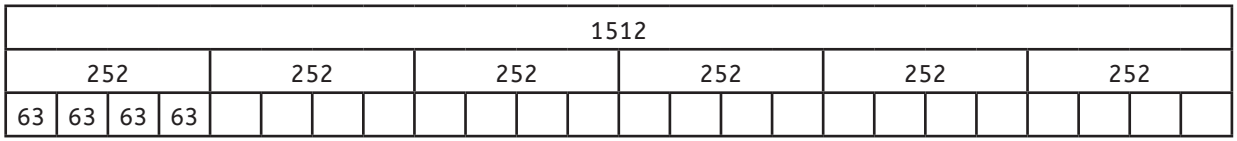
÷ 8 ÷ 8

60 + 2 = 62



1512 ÷ 24
Using factors

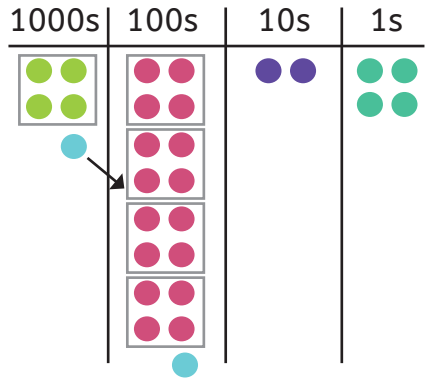
1512 ÷ 6 ÷ 4

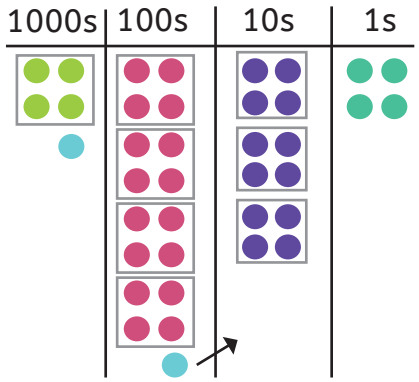


5724 ÷ 4

Formal written method

$$\begin{array}{r} 1\,4 \\ 4\overline{)5^{1}7\,2\,4} \end{array}$$





$$\begin{array}{r} 1\,4\,3\,1 \\ 4\overline{)5^{1}7^{1}2\,4} \end{array}$$

Division
YEAR 6

Known facts:
Use recall of all multiplication tables up to 12x12 to derive division facts

Include calculations where remainders occur

24 ÷ 4
Use known facts and place value

24,000 is a thousand times greater than 24

24 ÷ 4 = 6
240 ÷ 40 = 6
2400 ÷ 400 = 6
24,000 ÷ 4000 = 6
240,000 ÷ 40,000 = 6
2,400,000 ÷ 40,000 = 6

$24,000 \div 400 = \frac{24 \times 10,000}{4 \times 100}$

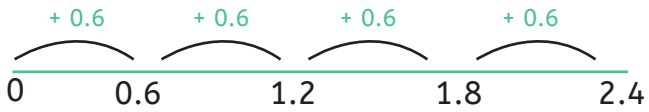
$\frac{2400}{4} = 600$

24 biscuits shared between
4 people means they will get 6 biscuits each.
If there are 10 times as many people and 10 times as many biscuits, how many biscuits each now?

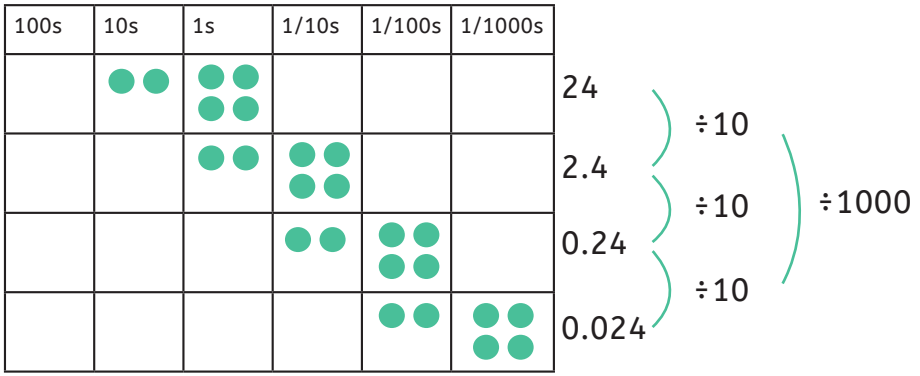
2.4 ÷ 0.6
Use known facts and place value

0.6 is ten times smaller than 6

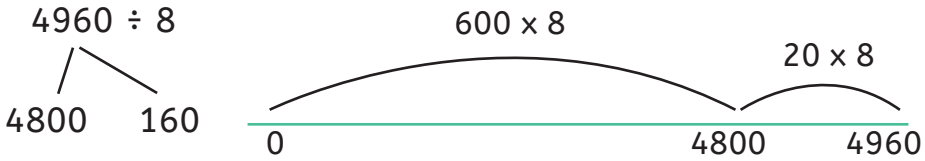
2.4 ÷ 0.6 = 4
How many steps of 0.6 make 2.4?



24 ÷ 1000
Divide by 10, 100, 1000

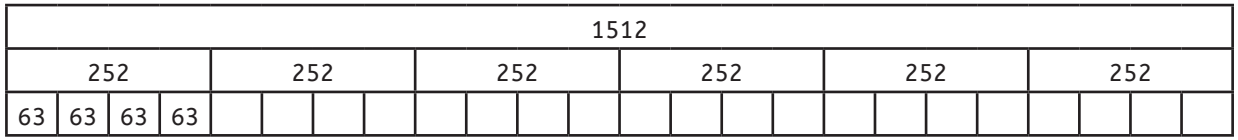


4960 ÷ 8
Partition and recombine



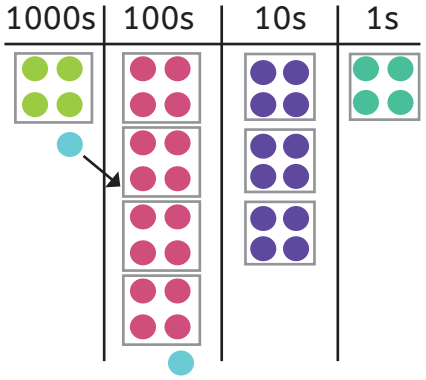
1512 ÷ 24
Using factors

1512 ÷ 6 ÷ 4



7182 ÷ 21

Formal written method



$$\begin{array}{r} 1\,4\,3\,1 \\ 4\overline{)5^{1}7^{1}2\,4} \end{array}$$

$$\begin{array}{r} 3\,4\,2 \\ 21\overline{)7\,1\,8\,2} \\ \underline{6\,3} \\ 8\,8 \\ \underline{8\,4} \\ 4\,2 \\ \underline{4\,2} \\ 0 \end{array}$$