

Understanding Multiplication and Division

Year 2 Summer Term Week 11

Lesson 3

Today we will be learning to:

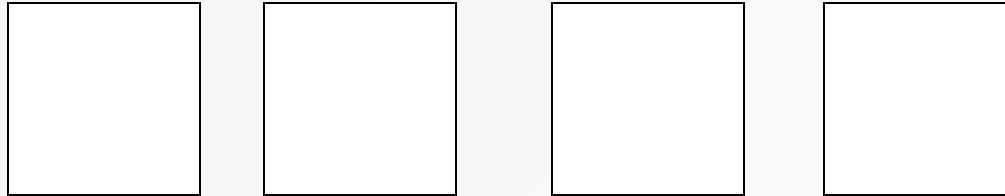
- double and halve
- understand that halving reverses doubling and vice versa.

Mental Activity

Number operations



Give me four numbers less than 10.

Four empty square boxes are arranged horizontally, intended for the user to write four numbers less than 10.

How many different answers
can you make using these numbers?

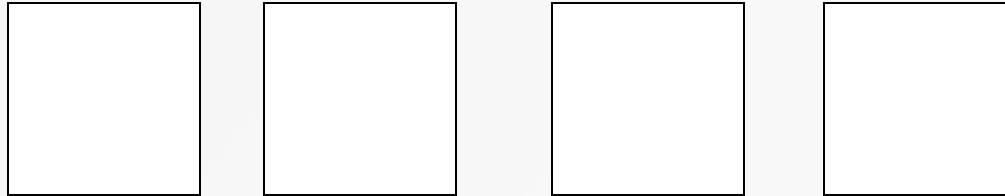
Use any number operations.

Four numbers less than 10.

What is the lowest answer you can make?

What is the highest answer you can make?

Give me four more
numbers less than 10.

Four empty square boxes are arranged horizontally, intended for the user to write numbers less than 10.

Use any number operations.

How do you make the highest answer?

Main Activity

Today we are going to practise
halving and doubling.

Explain:

'double'

'halve'



Double these numbers.

6

5

3

9

7

2

4

8

10

Halve these numbers.

6

5

3

9

7

2

4

8

10

Which numbers are easier to halve?



Why are these numbers hard to halve?

3

5

7

9

11

These are odd numbers.

There is always 1 left over.

Why are these numbers hard to halve?

3

5

7

9

11

This spare '1' left over can be halved.

This is a $\frac{1}{2}$.

Why are these numbers hard to halve?

3

5

7

9

11

Half of 11 is

5 with one left over

or 5 and a half.

Keep finding half of these numbers until you can not find a smaller answer.

80 $\xrightarrow{\text{half}}$

12 $\xrightarrow{\text{half}}$

44 $\xrightarrow{\text{half}}$


Double these numbers until you can not find a bigger answer.

$$\frac{1}{2} \xrightarrow{\text{double}}$$

$$7 \xrightarrow{\text{double}}$$

$$15 \xrightarrow{\text{double}}$$

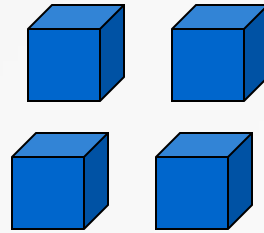
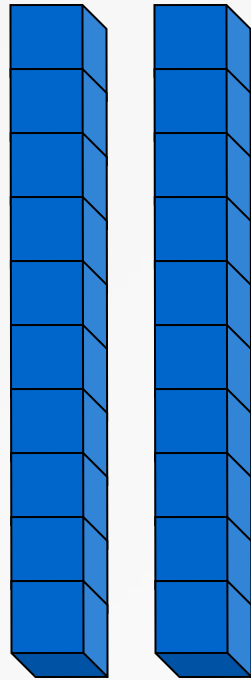
How many different ways could you
work out the answer?



You could:

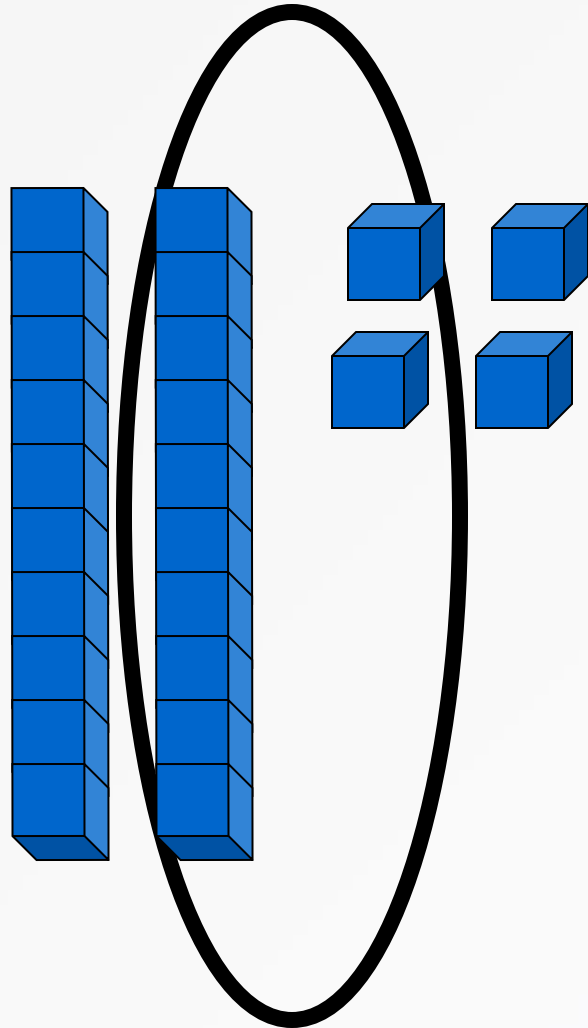
- recall
- know your 2 times-table
- use base 10 materials
 - use pictures
- work it out in your head.

Pictorial representation



half of 24

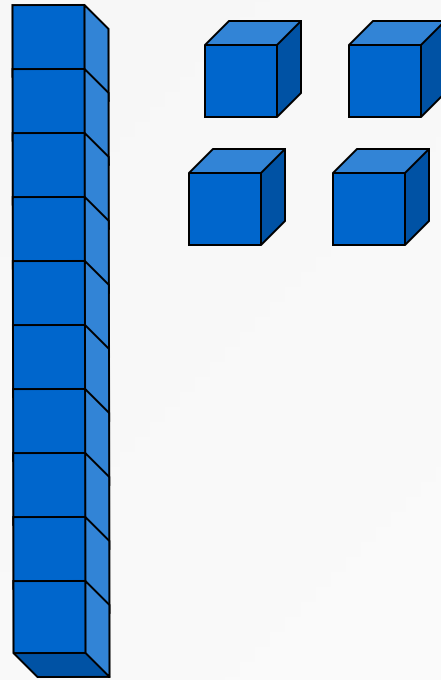
Pictorial representation



half of 24 is 12

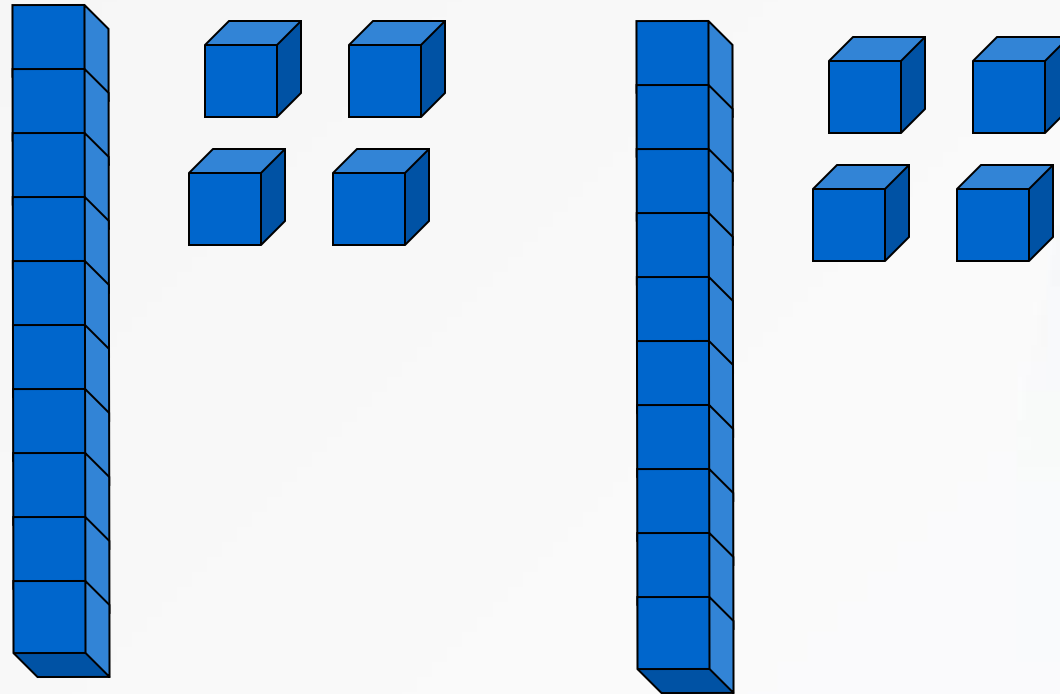
Pictorial representation

double 14



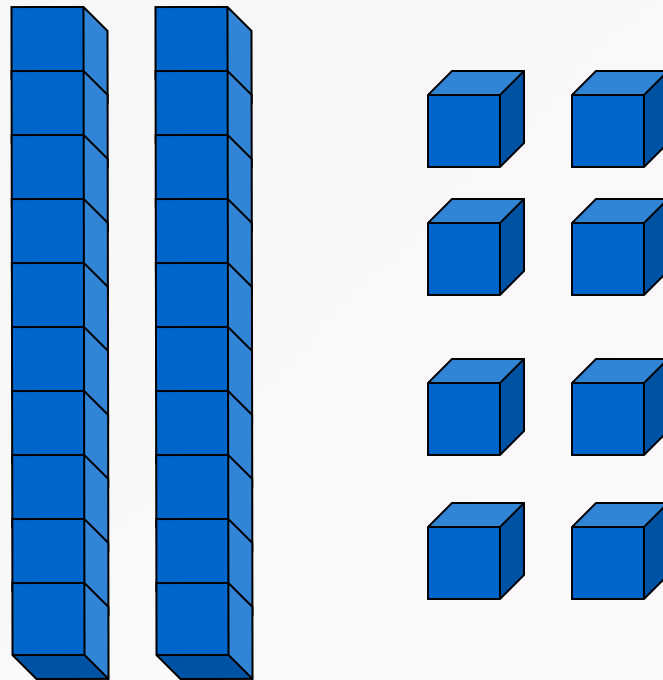
Pictorial representation

double 14 is 28



Pictorial representation

double 14 is 28



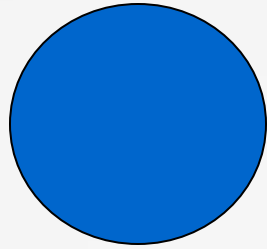
Mental strategies

Add the tens

then add the units.



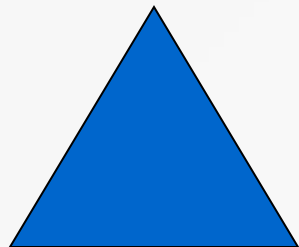
Group Work



Practise halving and doubling numbers in pairs. Use base 10 materials to help you.



Practise halving and doubling.



Choose your own numbers to halve and double.