

20 25  
5

## What is place value?

Every **digit** in a number has a **place value**.

A digit on its own means the number is in units.

5 on its own means five units: ★ ★ ★ ★ ★

If a number has two digits, each digit has a value depending on where it is in the number.

25 means two groups of ten and one group of five units, or  $20 + 5$ .

20: ★ ★ ★ ★ ★ ★ ★ ★ ★ ★  
★ ★ ★ ★ ★ ★ ★ ★ ★ ★  
+ 5: ★ ★ ★ ★ ★

## Finding the value of numbers

You need to know the place value of each digit in a two-digit number.

**62** = 6 tens and 2 units  
**46** = 4 tens and 6 units  
**85** = 8 tens and 5 units  
**39** = 3 tens and 9 units

## Keywords

**Digit** ► A number from 0–9 that can be used to make other numbers

**Place value** ► What a digit is worth. This depends on its position in a number



If you are unsure about the place value of a digit, put the number under tens and units columns.

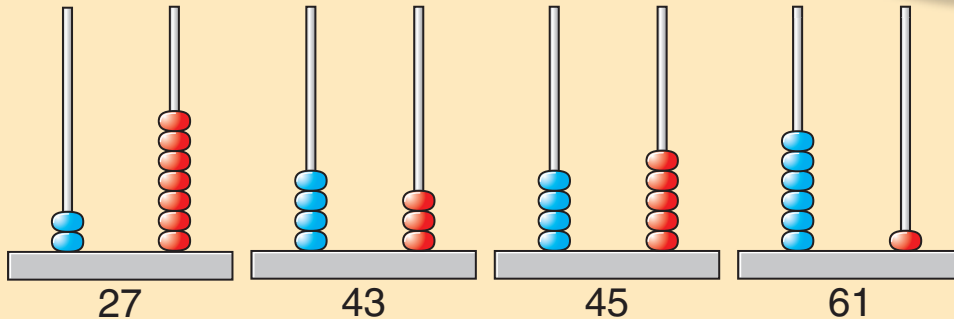
| Tens                  | Units |
|-----------------------|-------|
| 4                     | 3     |
| 4 tens + 3 units = 43 |       |



## Using an abacus

An **abacus** shows the place values of numbers.

The abacuses below show the place values for 27, 43, 45 and 61.



If you have an abacus, make up some problems. Otherwise, draw an abacus on paper and add the beads by hand.

### Keyword

#### Abacus ►

A tool for displaying numbers

## Using place value to help you add and subtract

If you know the place value of each digit in a number, it will help you when you add and subtract.

### Example questions:

$$45 + 30 = ?$$

Add 3 tens

$$\begin{array}{r} 45 \\ + 30 \\ \hline 75 \end{array}$$

$$45 - 30 = ?$$

Take 3 tens away

$$\begin{array}{r} 45 \\ - 30 \\ \hline 15 \end{array}$$



Always think about place value when you add or subtract.



Look for two-digit numbers, for example on houses or at the supermarket.

- Which is the tens digit and which is the units digit?



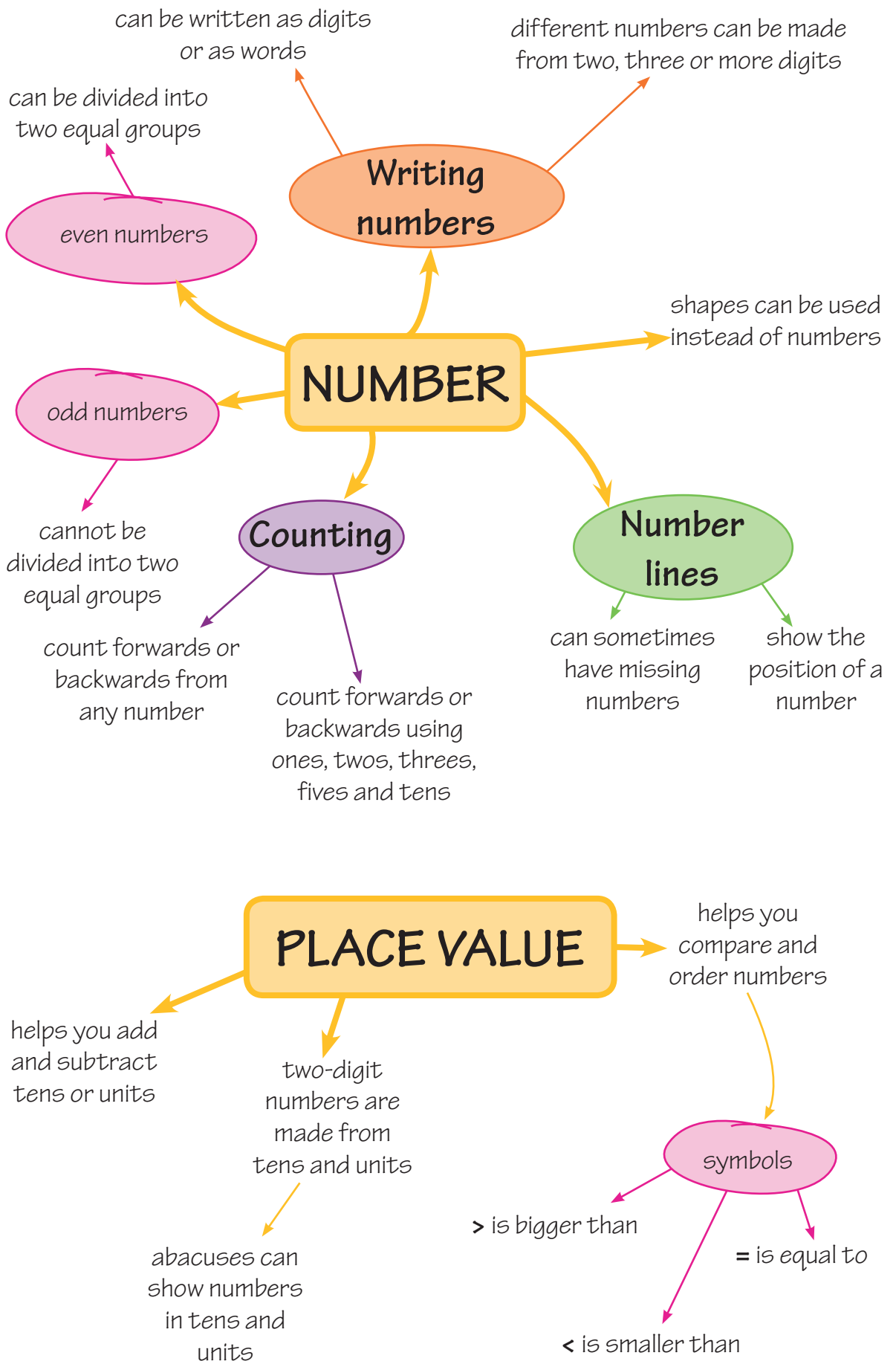
### 1 What are the missing numbers?

- $67 = \_ + 7$
- $\_ = 50 + 9$
- $28 = 20 + \_$

### 2 Work out:

- $63 + 20 = \_$
- $87 - 5 = \_$
- $68 - 40 = \_$

Now see if you can remember all the main points from this topic.  
Have a go at drawing your own mind map.



1 What are the next five numbers in each sequence?

a. 35 38 41 44 ..... (1 mark)

b. 67 62 57 52 ..... (1 mark)

c. 84 86 88 90 ..... (1 mark)

d. 5 15 25 35 ..... (1 mark)

2 Fill in the spaces.

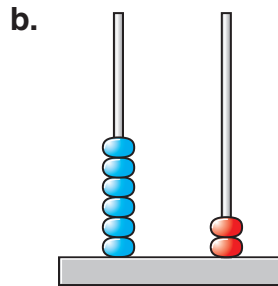
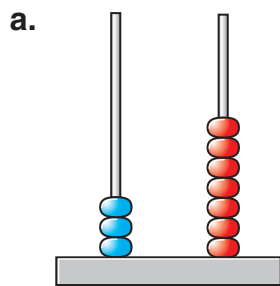
a. 68 = ..... tens and ..... units (1 mark)

b. .... = 7 tens and 8 units (1 mark)

c. 91 = ..... tens and ..... unit (1 mark)

d. ....4 = 3 tens and ..... units (1 mark)

3 What number does each abacus show? (2 marks)



.....

.....

4 Here are three digit cards. (4 marks)



a. Use them to make six different **two-digit** numbers.

.....

b. Now put your numbers in order, starting with the lowest.

.....

5 Write < or > in each circle to compare these numbers. (2 marks)

a. 56 ○ 28

b. 79 ○ 83

6 Write this number in words. 59: ..... (1 mark)

7 Write this as a number. forty-five: ..... (1 mark)

## Multiplying

When you are **multiplying**, you are counting or adding in steps of the same number.

$$2 + 2 + 2 + 2 + 2 = 10$$

Here, we add five twos to make 10.

Another way to write this is  $2 \times 5 = 10$ .

It does **not** matter in which order you multiply numbers.

Try to remember **multiplication words**.

$$4 \times 2 = 8$$

is the same as

$$2 \times 4 = 8$$



When you learn the multiplication facts, look for patterns in the numbers.  
Practise, practise, practise!

We can show multiplication facts as arrays.

Below is an array for  $5 \times 2$ . This array can be turned around to  $2 \times 5$ .



$$5 \times 2$$



$$2 \times 5$$

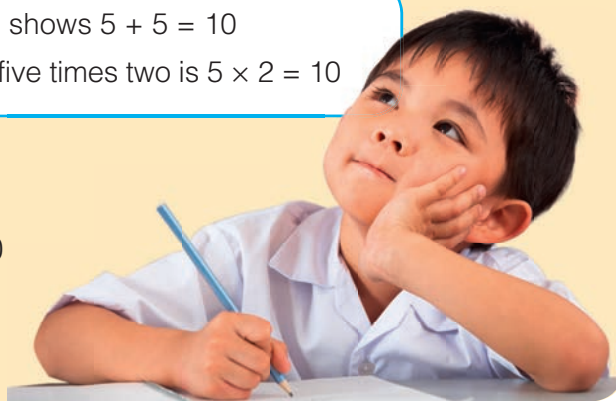
This array also shows  $5 + 5 = 10$

Writing this as five times two is  $5 \times 2 = 10$

These sums are the same:

$$2 + 2 + 2 + 2 + 2 = 2 \times 5 = 10$$

$$5 + 5 = 5 \times 2 = 10$$



## Keywords

**Multiplying** ➤ Counting or adding in steps of the same number

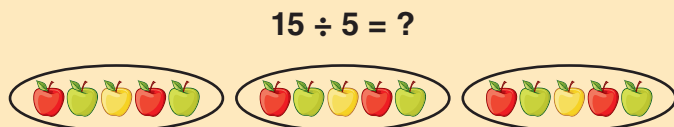
**Multiplication words** ➤ Words that show you may have to multiply, e.g. 'by', 'double', 'lots', 'times' and 'twice'





## Dividing

When you are **dividing** a number, you are splitting it into equal parts.



There are **3** groups of 5.

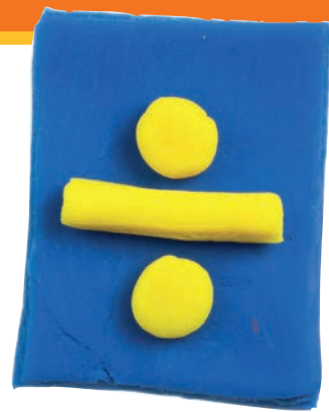
Also think of dividing as sharing the number equally.

$$15 \div 5 = ?$$

15 shared between 5, which is **3**.

It **does** matter in which order you divide numbers.

Try to remember **division words**.



**Parent tip!**

Encourage your child to learn division facts by using the opposite of multiplication facts.

## Division facts

If you know a multiplication fact, you should be able to work out the division fact.

If you know that  $4 \times 5 = 20$

you can work out that  $20 \div 5 = 4$

4 times 5 is 20, so splitting 20 into five groups is 4.

You also know that  $5 \times 4 = 20$

so, you can work out that  $20 \div 4 = 5$

## Keywords

**Dividing** ► To split or share a number equally

**Division words** ► Words that show you may have to divide, e.g. 'each', 'every', 'half', 'quarter', 'share', 'split' and 'third'



Try sharing objects, such as toys, beads or counters, into equal groups.

► Write down your calculation, for example:  
 $6 \div 2 = 3$

► Think about what you would do if you had any objects left over.



Work out:

① a.  $3 \times 5 = \underline{\quad}$       b.  $4 \times 2 = \underline{\quad}$

c.  $7 \times 10 = \underline{\quad}$       d.  $7 \times 5 = \underline{\quad}$

② a.  $12 \div 2 = \underline{\quad}$       b.  $40 \div 5 = \underline{\quad}$

c.  $60 \div 10 = \underline{\quad}$       d.  $45 \div 5 = \underline{\quad}$

③ Write the missing signs:

a.  $10 \bigcirc 5 = 50$

b.  $50 \bigcirc 10 = 5$