2 digit numbers

Addition

Addition is when two or more numbers are added together. In the sums below we are going to add the numbers together or count on by the value of the second number.

Write down the answers to the sums below. No calculators allowed!

17 + 23 = ☐	37 + 23 = ☐
47 + 10 = ☐	47 + 15 = ☐
29 + 12 = ☐	29 + 42 = ☐
32 + 11 = ☐	32 + 31 = ☐
55 + 15 = ☐	55 + 65 = ☐
41 + 18 = ☐	41 + 58 = ☐
36 + 19 = ☐	36 + 29 = ☐
42 + 16 = ☐	42 + 46 = ☐
70 + 17 = ☐	70 + 37 = ☐
81 + 14 = ☐	81 + 24 = ☐

Write the answers to the following questions in the spaces below.

10 + 58 = ☐	43 +18 = ☐
49 +13 = ☐	32 +16 = ☐
14 +65 = ☐	74 +12 = ☐
19 +35 = ☐	10 +17 = ☐
67 +12 = ☐	47 +15 = ☐
15 +48 = ☐	73 +18 = ☐
24 +17 = ☐	41 +14 = ☐

Time tests 1

Mix

Complete these sets of sums and time yourself while you do each one.

6 ÷ 2 =	
7 + 6 =	
9 x 6 =	
15 – 8 =	
2 + 8 =	
14 ÷ 2 =	
7 + 9 =	
12 – 5 =	
11 x 7 =	
8 – 5 =	

Date

Time taken

15 – 5 =	
11 – 6 =	
5 x 7 =	
4 x 9 =	
7 + 11 =	
20 ÷ 4 =	
13 + 7 =	
6 x 9 =	
15 ÷ 5 =	
9 – 1 =	

Date

Time taken

13 + 12 =	
10 – 1 =	
12 + 9 =	
10 x 10 =	
5 x 7 =	
13 – 9 =	
1 x 22 =	
30 ÷ 2 =	
25 – 16 =	
12 + 13 =	

Date

Time taken

2 x 9 =	
15 – 9 =	
18 ÷ 2 =	
17 + 12 =	
14 ÷ 7 =	

8 x 6 =	
42 – 3 =	
15 ÷ 3 =	
8 + 7 =	
17 – 9 =	

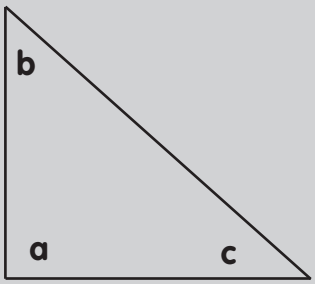
Date

Time taken

Right angle triangles

Angles

Triangles have three corners or angles.
The angles of a triangle always add up to **180°.**
Angles on a straight line also add up to **180°.**



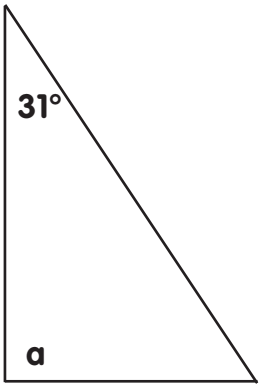
In the diagram we can see that:

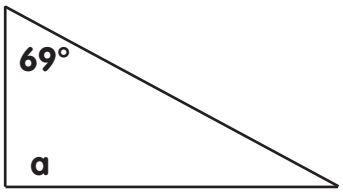
Angle **a = 90°**

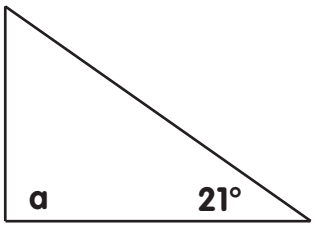
The angles in a triangle = **a + b + c = 180°**

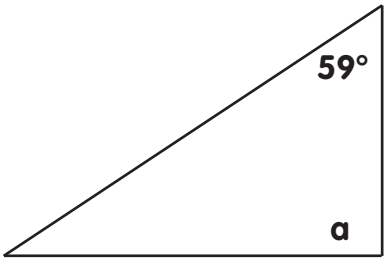
Therefore **a + b + c = 180°**

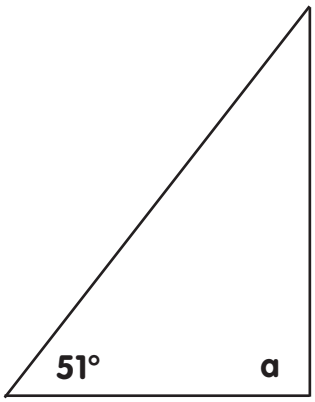
Look at the triangles below. Angle **a** *is always a right angle (***90°).**
Write in the missing angles.

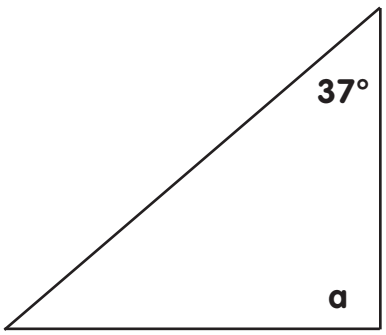












Quadrilaterals

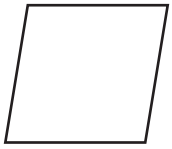
Shape

Shapes have many different names.

All four sided shapes are **quadrilaterals** *and their angles add up to 360°*

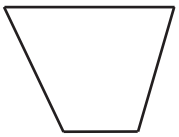
There are different types of quadrilaterals. A **square** *and a* **rectangle** *or* **oblong** *belong to this group of shapes and they all have right angled corners.*

A **rhombus** *is a four-sided shape where all sides are of equal length, opposite sides are parallel and opposite angles are equal.*

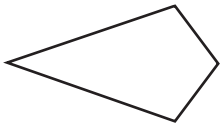


A **parallelogram** *is a four-sided shape where opposite sides are of equal length and parallel, and opposite angles are equal.*

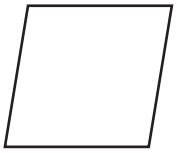
A **trapezium** *is any other four-sided shape where one pair of opposite sides are parallel.*



A **kite** *is a four-sided shape that has two pairs of equal sides which are next to each other and no parallel sides.*



Join the shapes below to their name.



kite

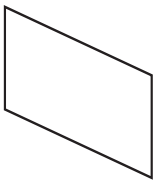
square

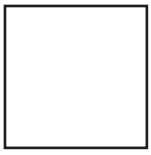
rectangle

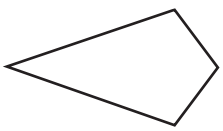
rhombus

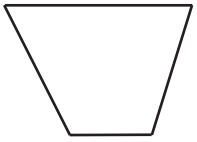
trapezium

parallelogram





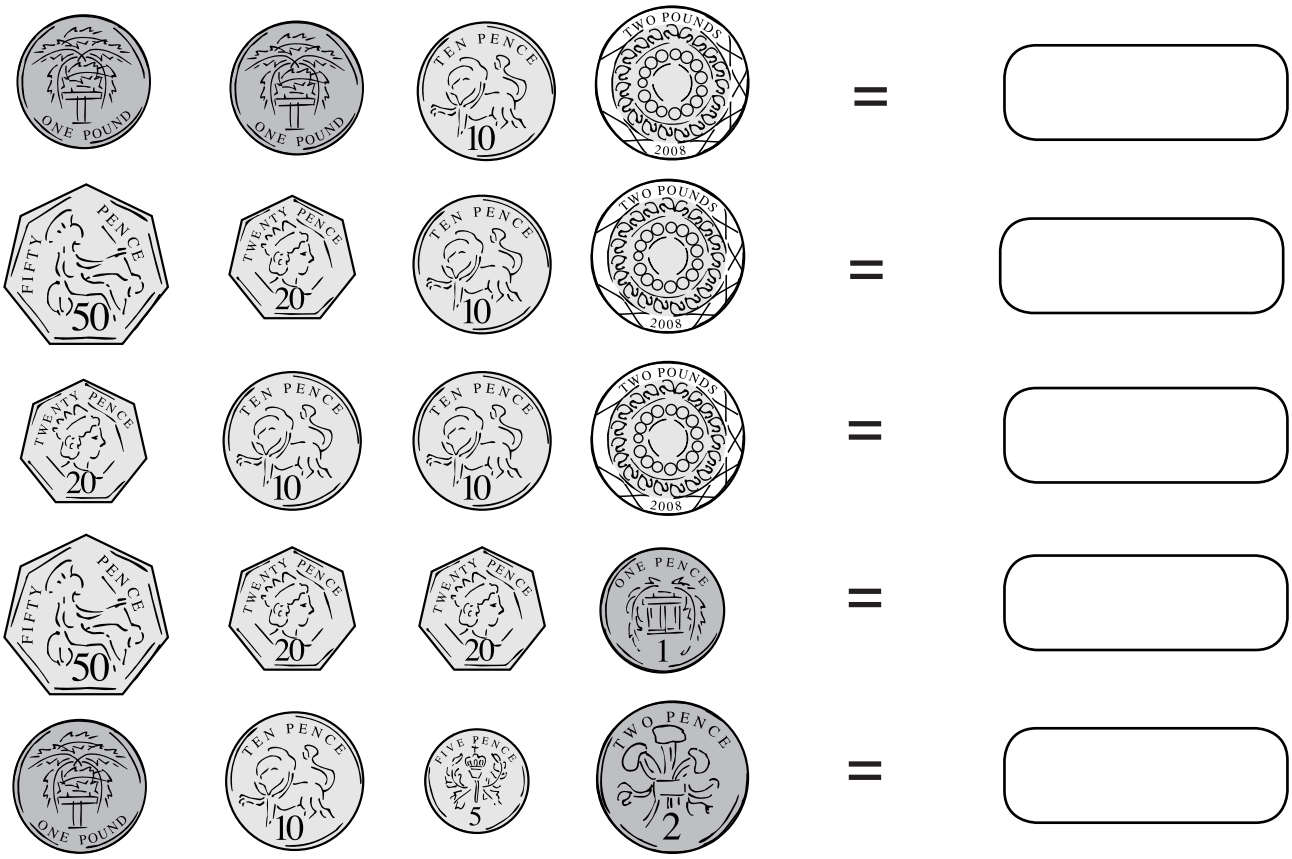




Coins 2

Money

Round the total values of the coins below to the nearest £1.



Round the total values of the coins below to the nearest £5.

Factors

Division

Factors are numbers which divide completely into other numbers.
A good way is to start with the number 1 and try all the numbers in turn, include the number itself.

For example, to find all the factors of 16 *divide by each number in turn:*

$16 \div 1 = 16$
$16 \div 2 = 8$
$16 \div 3 = 5.3$
$16 \div 4 = 4$
$16 \div 5 = 3.2$
$16 \div 6 = 2.6$
$16 \div 7 = 2.29$
$16 \div 8 = 2$

When you get to half way you can stop.
Therefore the factors of 16 are 1, 2, 4, 8, and 16.

Now *find the factors of the numbers below.*

21

24

36

56

Now try these.

List all the multiples of 5 up to 70.

List the multiples of 8 up to 60.

Find all the factors of 9.

Which three numbers are factors of 4 and 12?.

Word problems

×9

Answer the questions below as quickly as you can.
Make sure you write out the whole sum.

1. 5 elephants eat 9 buns each. How many buns is that altogether?

2. Emma gives 2 sweets to each of her 9 friends. How many sweets is that in total?

3. Nine cats have four legs each. How many legs is that altogether?

4. There are 54 boys sleeping in 9 tents. How many boys will be in each tent ?

5. 9 boys swim 3 lengths each. How many lengths is that in total?

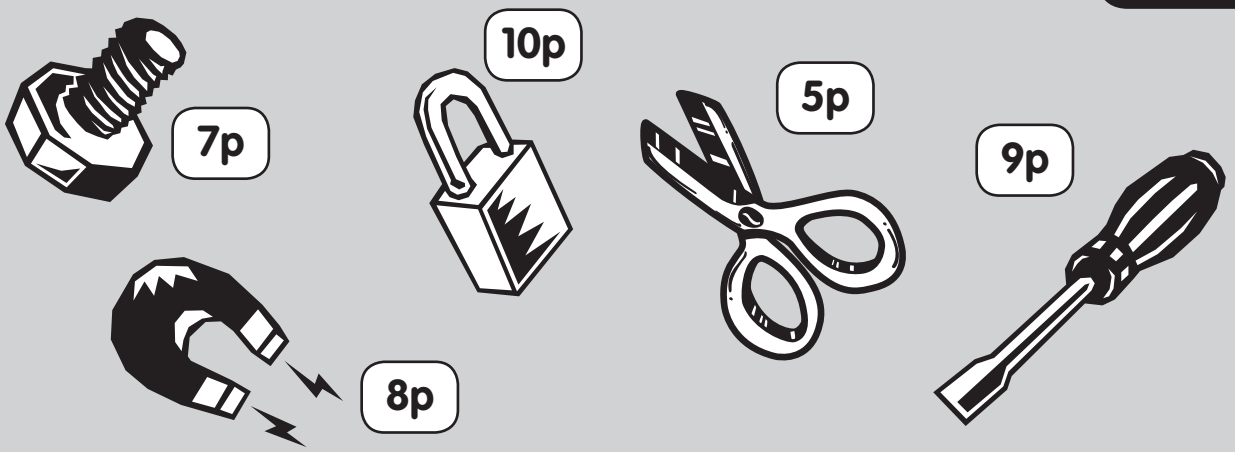
6. Nine plants have seven flowers each. How many flowers are there altogether?

7. A jar of 81 sweets are divided equally between 9 children. How many do they get each?

8. There are 9 tricycles at the nursery. How many wheels are there in total?

The 7 times table – solving problems

×7



Answer the questions below as quickly as possible and remember to write in the pence sign when required.

1. How many padlocks can you buy for 70p?
2. How many magnets can you buy for 56p?
3. How many pairs of scissors can you buy for 35p?
4. How many screwdrivers can you buy for 63p?
5. How many bolts can you buy for 42p?
6. How much would seven screwdrivers cost?
7. How much would seven pairs of scissors cost?
8. How much would seven magnets cost?
9. How much would seven padlocks cost?
10. How much would three bolts cost?

Square and cube numbers

Multiplication

When a number is multiplied by itself it is known as a square number.

For example: $2^2 = 2 \times 2 = 4$ $4^2 = 4 \times 4 = 8$

When a number is multiplied by its square it is known as a cube number.

For example: $2^3 = 2 \times 2 \times 2 = 8$ $4^3 = 4 \times 4 \times 4 = 64$

Complete the sums about square and cube numbers below.

$3^2 = 3 \times 3 =$ ☐ $5^2 = 5 \times 5 =$ ☐

$5^2 = 5 \times 5 =$ ☐ $8^2 = 8 \times 8 =$ ☐

$9^2 = 9 \times 9 =$ ☐ $10^2 = 10 \times 10 =$ ☐

$3^3 = 3 \times 3 \times 3 =$ ☐ $5^3 = 5 \times 5 \times 5 =$ ☐

$8^3 = 8 \times 8 \times 8 =$ ☐ $6^3 = 6 \times 6 \times 6 =$ ☐

Circle the numbers below that are square numbers in red and the cube numbers in green.

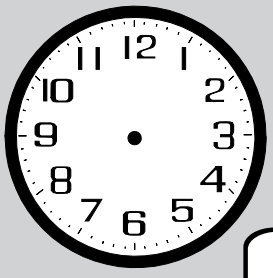
36 81 100 121 64 85 8 68 99 27 16 78 49 45 25 125 1000

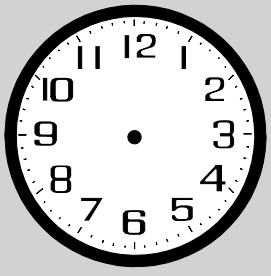
What time is it? – digital

Time

Write down the times that you see on the clocks below using the twenty four hour clock method.

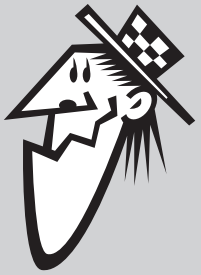
Draw the times on the clocks below.





Addition of fractions

To add two fractions together the number below the line or denominator must be the same on both fractions. If the denominators of the fractions are different, the lowest common denominator must be found.



$$\frac{1}{3} + \frac{5}{6}$$

$$= \frac{3 + 5}{6} = \frac{8}{6} = 1\frac{2}{6} = 1\frac{1}{3}$$

Now answer the questions below.

$$\frac{1}{5} + \frac{5}{10}$$

$$= \frac{\quad + \quad}{\quad} = \boxed{\quad}$$

$$\frac{1}{2} + \frac{1}{4}$$

$$= \frac{\quad + \quad}{\quad} = \boxed{\quad}$$

$$\frac{1}{12} + \frac{5}{6}$$

$$= \frac{\quad + \quad}{\quad} = \boxed{\quad}$$

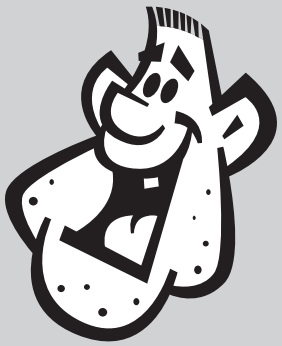
$$\frac{1}{8} + \frac{3}{4}$$

$$= \frac{\quad + \quad}{\quad} = \boxed{\quad}$$

Now try these.

$$\frac{2}{5} + \frac{9}{10}$$

$$= \frac{\quad + \quad}{\quad} = \boxed{\quad} = \boxed{\quad}$$



$$\frac{3}{4} + \frac{5}{8}$$

$$= \frac{\quad + \quad}{\quad} = \boxed{\quad} = \boxed{\quad}$$

Word problems

Subtraction

Answer the questions below.

1. Josh is seventeen. How old was he ten years ago?
2. Phil has two hundred marbles. He loses one hundred and two. How many does he have left?
3. A glass holds two hundred and fifty millilitres, Sam drinks one hundred and ten millilitres. How much is left?
4. It is five hundred and ten miles to Anna's house. She stops after 234 miles. How much further has she to go?
5. Adil's height is 152cm and Saba is 140cm tall. How much taller is Adil than Saba?
6. Tom cuts a hundred and twenty centimetres from a two metre length of material. How much is left?
7. Nineteen friends go to a party. One hundred and eleven people are already there. How many people altogether?
8. A jar contains two hundred and twenty sweets. Sam eats a hundred and two. How many sweets are left?
9. A wall is built with six hundred and seventy two bricks. Two hundred and twenty fall down. How many are left?
10. A shelf holds three hundred and fifty six books. Two hundred and one are taken off. How many books are left?