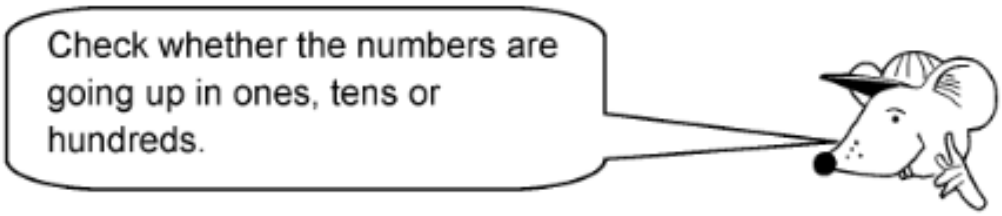
SET 3	
1. What number is halfway between 46 and 52 ?	
2. What number is missing in this sequence: 8, 12, 16, ?? , 24	
3. A number is bigger than 804 and smaller than 810. What could the number be?	
4. Which is the smallest of these numbers: 34, 56, 78, 24, 45 ?	
5. How many sides does a hexagon have?	
6. Which shape has five sides?	
7. What is 654 to the nearest 10 ?	
8. Which number comes between –3 and –5 ?	
9. Write down a number in the six times table bigger than 20 and smaller than 28.	
10. Write down a number between twenty and thirty that is divisible by 4 and by 6.	

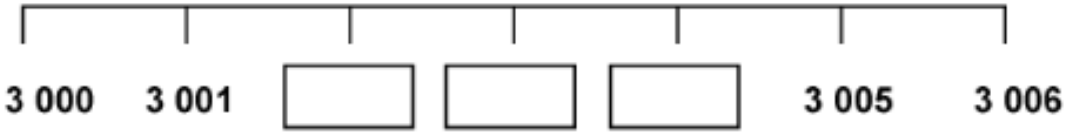
Hi! Find missing numbers, numbers half way between other numbers and much more!

SET 4	
1. What number is halfway between 122 and 128 ?	
2. What number is missing in this sequence: 5, 8, 11, ?? , 17	
3. A number is bigger than 345 and smaller than 350. What could the number be?	
4. Which is the smallest of these numbers: 78, 46, 56, 55, 91 ?	
5. How many sides does a decagon have?	
6. Which shape has seven sides?	
7. What is 738 to the nearest 10 ?	
8. Which number comes between –8 and –10 ?	
9. Write down a number in the five times table bigger than 43 and smaller than 48.	
10. Write down a number between thirty eight and forty-two that is divisible by 4 and by 5.	

Fill in the missing numbers on these number lines:



1.



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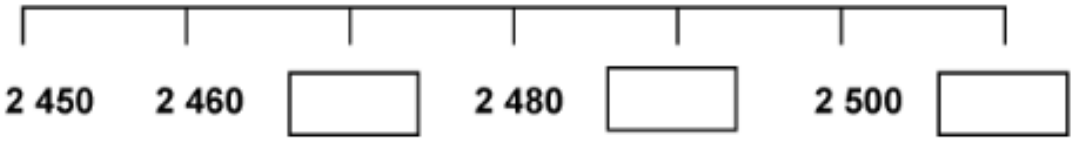

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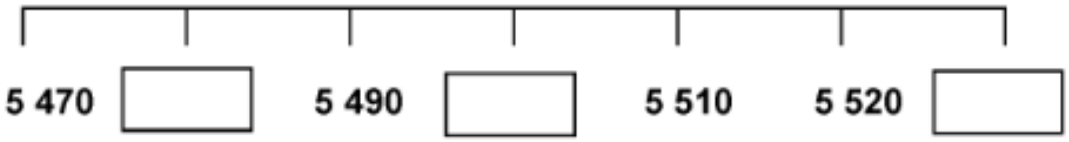

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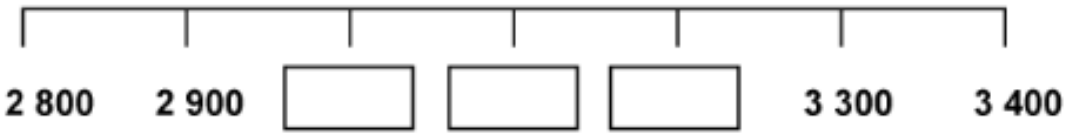
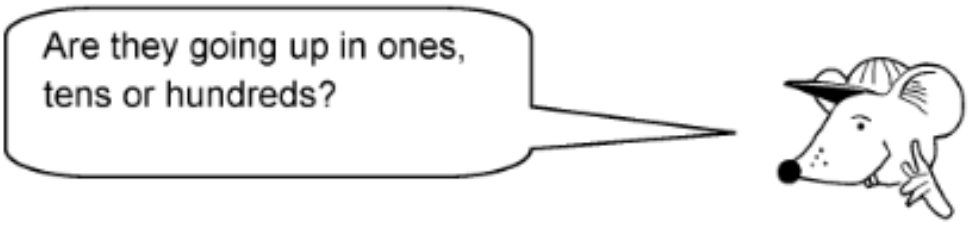


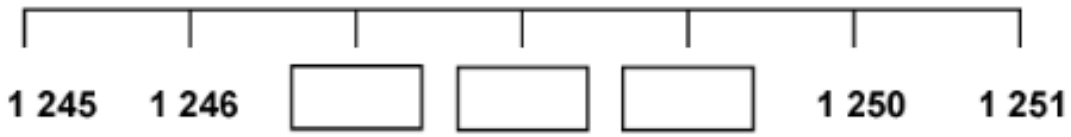
5. My car cost between £ 7 950 and £ 8 250. Suggest what it might have cost.

6. A family took between $ 4 900 and $ 5 100 on holiday with them to Florida. Suggest exactly how much they might have taken.

Fill in the missing numbers on these number lines:



1.



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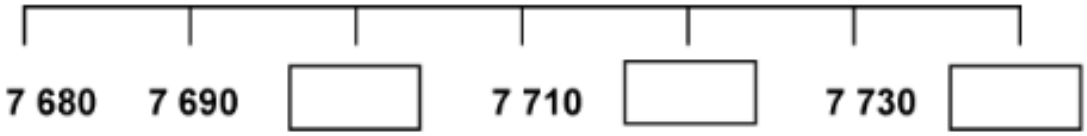

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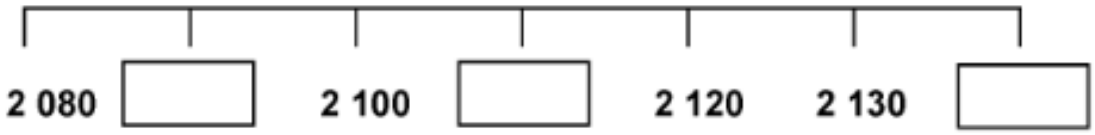

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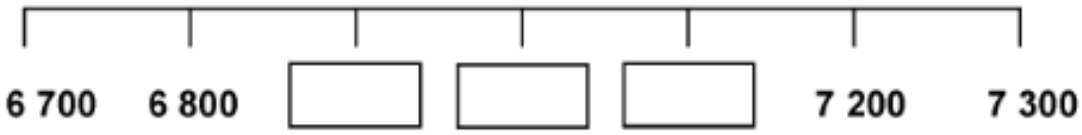


5. Holidays to France cost between £1 350 and £1 500. Suggest what a holiday might have cost.

6. What is half way between 2 400 and 3 400 ?

The number **4.2** is pronounced **'four point two'**.

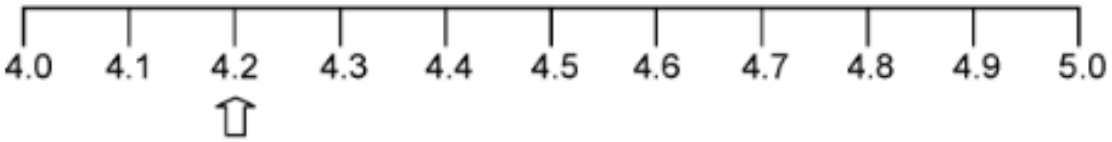
It means four whole ones and two tenths of a whole one.

In the chart below write down how you say each of these decimal fractions. The first is done for you.

1. 3.8	Three point eight
2. 4.7	
3. 6.1	
4. 7.9	
5. 5.5	
6. 8.3	

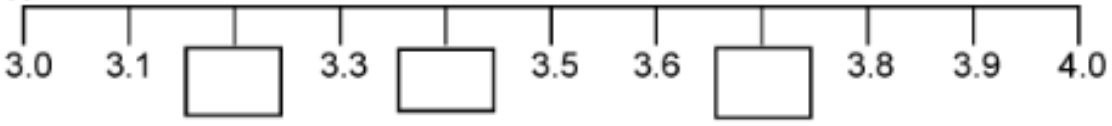
What does 4.2 mean?

The four means four whole ones and the two means two tenths, so 4.2 is a number between 4 and 5. Look at the number line below to see where it comes:

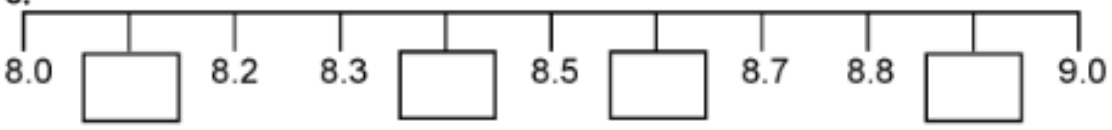


Fill in the missing numbers on the number lines below. Practice counting up and down each time.

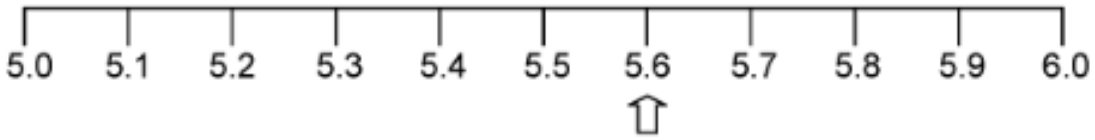
7.



8.



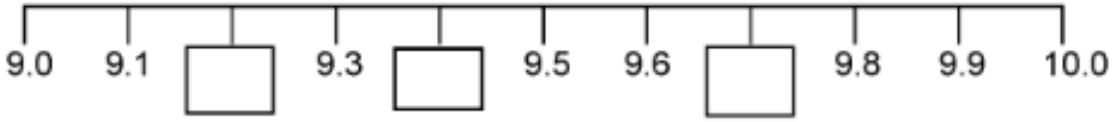
Decimal fractions



The arrow is pointing at 5.6 We say this, 'five point six'.

Fill in the missing numbers on the number lines below. Practise counting up and down each time.

1.



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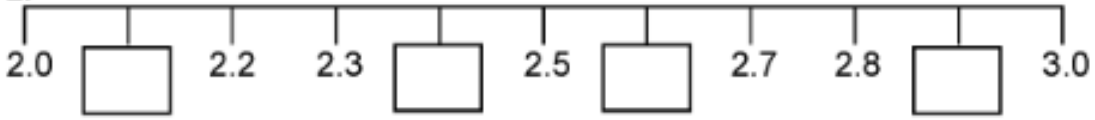

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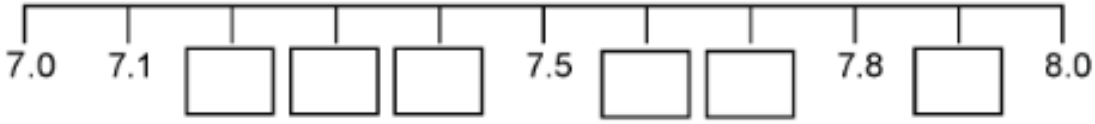

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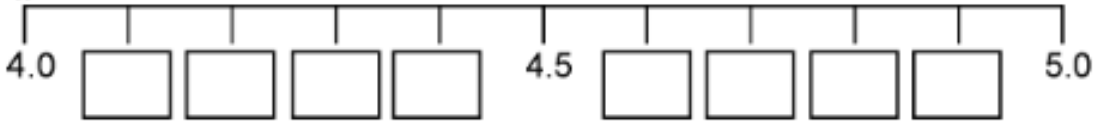


Write these in numbers:

e.g. four point six = 4.6

5. Three point six ……

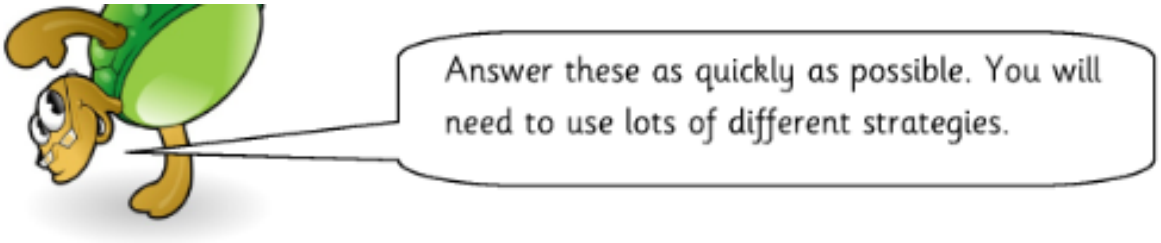
6. Six point eight ……

7. Five point eight ……

8. Nine point nought ……

9. Four point one ……

10. Seven point eight ……



A. True or false: put a tick or a cross in the box to say whether these are true or false.

1. $16 \div 4 = 8$ ☐ 2. $48 \div 4 = 4 \div 48$ ☐ 3. $30 - 5 - 5 - 5 = 30 \div 2$ ☐

4. $30 \div 1 = 1$ ☐ 5. $0 \div 40 = 40$ ☐ 6. $30 \div 3 = 60 \div 6$ ☐

B. Complete the division number sentences to make them correct.

7. $24 \div 4 =$ ☐ 8. $24 \div$ ☐ $= 12$ 9. ☐ $\div 1 = 24$

10. $36 \div 9 =$ ☐ 11. $36 \div$ ☐ $= 3$ 12. ☐ $\div 2 = 18$

C. Divide these amounts of money by 10.

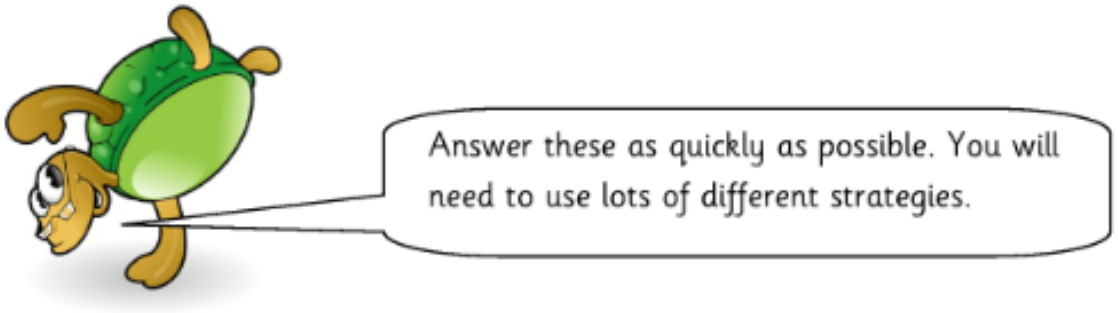
13. £240 ☐ 14. £26 ☐ 15. £3.50 ☐

16. £330 ☐ 17. £17 ☐ 18. £6.40 ☐

C. Divide these numbers by 4.

19. 44 ☐ 20. 100 ☐ 21. 36 ☐

22. 16 ☐ 23. 400 ☐ 24. 48 ☐



A. True or false: put a tick or a cross in the box to say whether these are true or false.

1. $36 \div 4 = 8$ ☐ 2. $40 \div 4 = 4 \div 40$ ☐ 3. $10 + 3 + 3 = 32 \div 2$ ☐

4. $46 \div 1 = 46$ ☐ 5. $1 \div 2 = 1$ ☐ 6. $20 \div 2 = 50 \div 5$ ☐

B. Complete the division number sentences to make them correct.

7. $35 \div 5 =$ ☐ 8. $18 \div$ ☐ $= 3$ 9. ☐ $\div 10 = 10$

10. $27 \div 9 =$ ☐ 11. $42 \div$ ☐ $= 6$ 12. ☐ $\div 2 = 40$

C. Divide these amounts of money by 10.

13. £130 ☐ 14. £21 ☐ 15. £6.50 ☐

16. £550 ☐ 17. £18 ☐ 18. £7.50 ☐

C. Divide these numbers by 5.

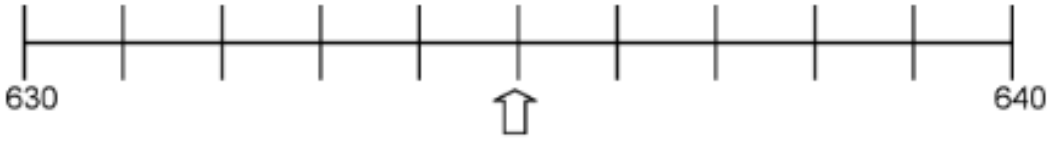
19. 40 ☐ 20. 60 ☐ 21. 100 ☐

22. 25 ☐ 23. 50 ☐ 24. 5 ☐

SET 5	
1. Which of these numbers divide exactly by five: 12, 23, 45, 23, 60 ?	
2. Michael has 23 sweets. He shares them equally between four girls. How many does he have left over?	
3. Is two quarters the same as: One third One half or One fifth?	
4. Which is the smallest of these numbers: 37, 52, 81, 29, 63 ?	
5. What is one tenth of 60 ?	
6. There are five school days in one week. How many school days are there in eight weeks?	
7. How many pennies are there in one pound?	
8. How many pennies are there in six pounds?	
9. Add 27 and 52.	
10. What number do I need to add to 23 to get 32?	

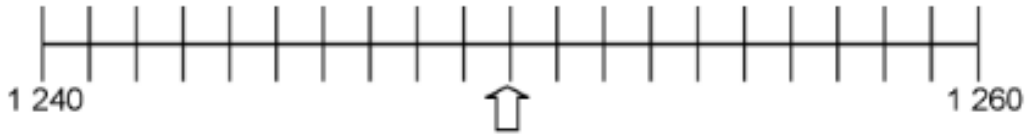
NUMBER LINES

1. Show on the number line what number is half way between 630 and 640.

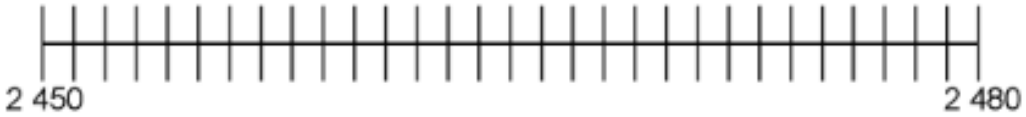


2. Show on the number line what number is half way between 1 000 and 1 100.

3. Show on the number line what number is half way between 1 240 and 1 260.



4. Show on the number line what number is half way between 2 450 and 2480.



Without using a number line write down what is half way between these numbers:

5. 4 350 and 4 360 .....

6. 7 660 and 7 860 .....

7. 5 900 and 6 000 .....

8. 2 200 and 2 240 .....

9. 3 450 and 3 650 .....

10. 5 480 and 5 500 .....

11. My score for a test was half way between the bottom mark of 150 and the top mark of 170. What was my score?

12. Sarah is 130 cm tall. Carol is 160 cm tall. Lindy is half way between the heights of Sarah and Carol. How tall is she?

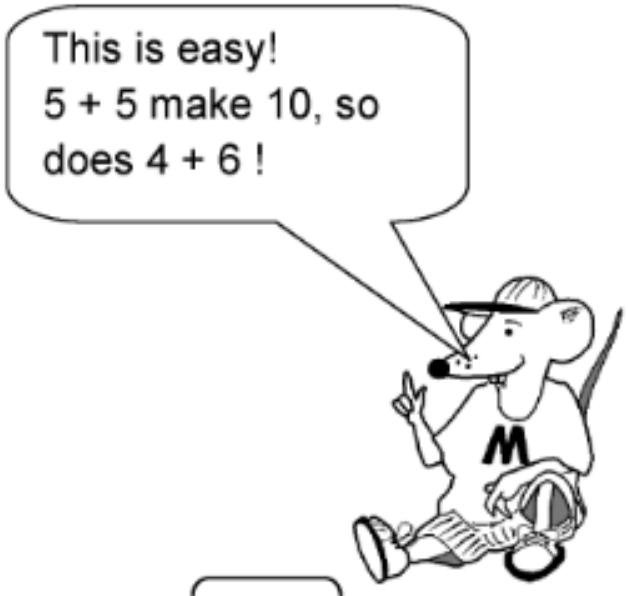
Addition - mental

Without using a pencil and paper method, work the answers out to these number addition problems:

1. 3 + 6 + 8 = ……..
2. 7 + 5 + 2 = ……..
3. 9 + 1 + 4 = ……..
4. 8 + 4 + 3 = ……..
5. 7 + 7 + 4 = ……..
6. 5 + 3 + 3 = ……..
7. 6 + 6 + 2 = ……..
8. 9 + 9 + 6 = ……..
9. 9 + 7 + 6 = ……..
10. 1 + 8 + 8 = ……..
11. 2 + 9 + 6 = ……..
12. 5 + 9 + 2 = ……..

When adding several small numbers it is a good idea to look for pairs of numbers that make 10.

Try these:



13. 8 + 3 + 2 = ☐
14. 6 + 9 + 4 = ☐
15. 5 + 4 + 6 = ☐
16. 2 + 9 + 1 = ☐

Try these addition and subtraction questions. Simple really if you are good at adding tens and units!

1. 47 + 50 = ...
2. 63 + 30 = ...
3. 456 + 40 = ...
4. 263 + 20 = ...
5. 615 + 80 = ...
6. 670 + 20 = ...
7. 162 + 30 = ...
8. 47 + 40 = ...
9. 573 – 20 = ...
10. 420 – 10 = ...

11. 749 – 30 = ...
12. 893 – 80 = ...
13. 142 – 20 = ...
14. 890 – 90 = ...
15. 739 – 20 = ...
16. 65 + ... = 95
17. 53 + ... = 93
18. ..... + 30 = 87
19. 35 + ... = 75
20. 56 + ... = 86

21. ..... + 40 = 97
22. 45 + ... = 75
23. 88 + ... = 98
24. 78 – ..... = 28
25. ..... – 60 = 230
26. 36 – ..... = 20
27. 98 – ..... = 38
28. ..... – 30 = 56
29. 77 – ..... = 37
30. 99 – ..... = 19

Without doing any working out on paper, write the answers to the following:

1. 2 000 − 4 = ☐

2. 3 000 − 8 = ☐

3. 5 000 − 3 = ☐

4. 6 000 − 7 = ☐

5. ☐ − 4 = 2 996

6. ☐ − 7 = 1 993

7. ☐ − 8 = 1 992

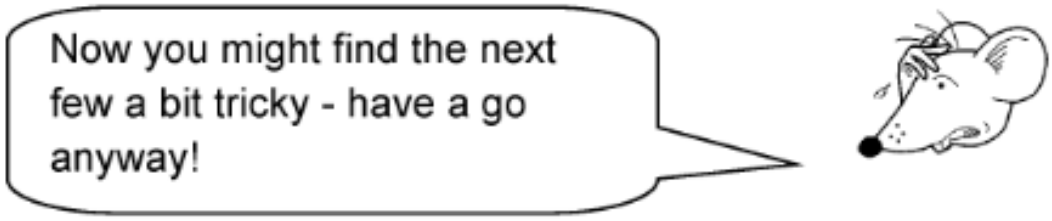
8. ☐ − 5 = 5 995

9. 6 000 − ☐ = 5 991

10. 4 000 − ☐ = 3 993

11. 1 000 − ☐ = 997

12. 2 000 − ☐ = 1 994



13. 5 002 − 7 = ☐

14. 2 007 − 9 = ☐

15. 4 005 − 8 = ☐

16. 3 004 − 6 = ☐

On these pages you will have the chance to investigate many different problems.
Think carefully and see what ideas you can think of.

1. Find three consecutive numbers that add up to **24**. ……

   Find three that add up to **42**. ……

   How many numbers are there up to **60** that can be made by adding three consecutive numbers? ……

2. Two numbers have a sum of **16** and a product of **63**.
   What are the numbers? ……

   Can you find two numbers with a sum of **20** and a product of **96** ? ……

   Make up some similar problems for your friends to do.

3. Divvy has **24** squares. He can arrange them into a rectangle **6** squares by **4** squares. What other rectangles can he make?

……

4. Here's a game to play.
   You can only use the digits **1, 2, 3** and **4** and you can only use them once each.

   You can also use the signs **+, –, ×, ÷** and brackets.

   The game is to make as many different whole numbers as possible.

Here's an example: **41 + 2 × 3 = 47**

Here's another: **(3 + 1) × 2 + 4 = 12**

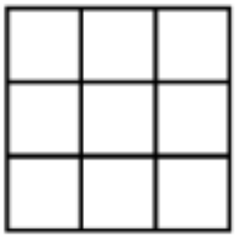
……

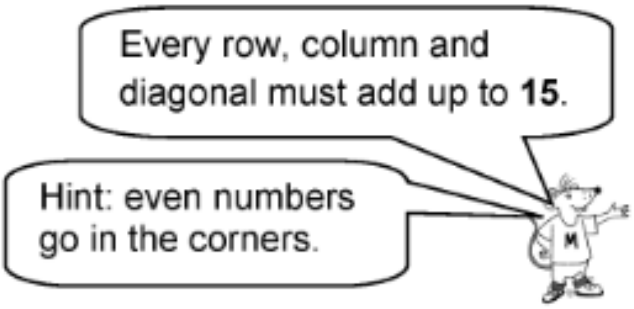
……

……

……

1. Can you put the numbers **1 to 9** in the grid to make a magic square?





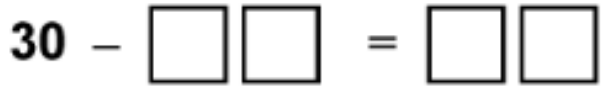
2. Put one of the digits **2, 4, 5, 7** in each box to make this statement true:

What other numbers can you make like this using the digits **2, 4, 5, 7** ?

.....

.....

3. How many subtraction calculations can you make up using four digits with the number 30 at the start, like this?

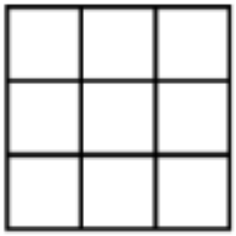


(Here's an example: 30 – 12 = 18)

.....

.....

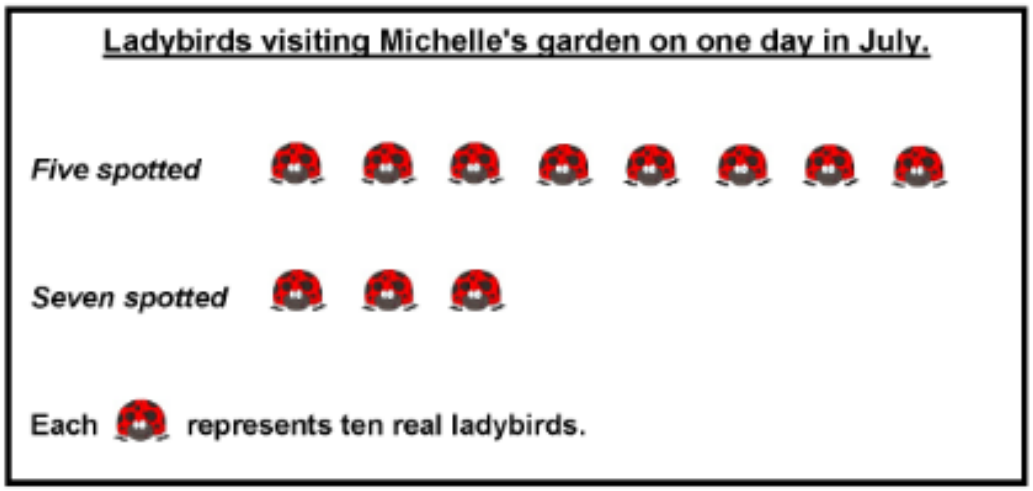
4. How many squares are there in this shape?



Can you make up other shapes and count the squares?

Ladybirds

1. Michelle counted the number of ladybirds visiting part of her garden on one day in July. She counted the five spotted and the seven spotted ladybirds separately. This is her pictogram:



a) How many five spotted ladybirds visited Michelle's garden?

b) How many seven spotted ladybirds visited Michelle's garden?

c) Which ladybird is most likely to visit Michelle's garden next?

d) Draw a pictogram to show roughly how many ladybirds would visit Michelle's garden in three days.

e) What do you think would happen if Michelle did her survey in November?

2. Carry out your own survey. Count the number of **men**, **women**, **boys** and **girls** that pass a certain point in a short time such as five minutes.

Record your results in a table. Can you use a tally to count?

Choose a symbol for five men, one for five women, one for five girls and one for five boys and draw a pictogram to show your results.

Here are some more quick mental subtraction questions. They are not difficult, but you should work them out in your head as quickly as you can and then write down how you did them.

1. How many is **56** less **7** ? .....

   I did this by: .....

2. What must Dave add to **67** to make **93** ? .....

   I did this by: .....

3. How many more is **250** than **125** ? .....

   I did this by: .....

4. What must Jo add to **176** to make **200** ? .....

   I did this by: .....

5. If I have **145** marbles and lose **28** of them, how many do I have now? .....

   I did this by: .....

6. Decrease **86** by **14**. .....

   I did this by: .....

7. I add a secret number to **67** and get **94**. What was the secret number? .....

   I did this by: .....

8. Alan had **78** picture cards. He sold **39**. How many did he have left? .....

   I did this by: .....

9. What must I take from **600** to leave **247** ? .....

   I did this by: .....

10. What must I take from **1 000** to leave **350** ? .....

    I did this by: .....

On this page, you need to measure in **grams** and **kilograms**, so you will need at least one weighing balance.
If you are at home, you could use kitchen scales.

Choose some things to measure in **grams**.
Put your results in the table below.

If possible, check your results with your friends to see how accurately you are measuring.

Object	Measurement in grams

Now choose some things to measure in **kilograms**.
Don't drop heavy things on your feet!
Put your results in the table below.

Object	Measurement in kilograms

Make sure you understand the units in the table.

Then you can answer the questions below.

1 kilometre equals **1 000 metres**
1 metre equals **100 centimetres** or **1 000 millimetres**
1 centimetre equals **10 millimetres**
1 kilogram = **1 000 grams**
1 litre equals **1 000 millilitres**

a. How many metres are there in 4 kilometres? .....

b. How many centimetres are there in 5 metres? .....

c. How many millimetres are there in 7 metres? .....

d. How many millimetres are there in 4 centimetres? .....

e. How many grams are there in 3 kilograms? .....

f. How many millilitres are there in 8 litres? .....

g. How many grams are there 12 kilograms? .....

h. How many kilometres are there in 8 000 metres? .....

i. How many centimetres are there in 40 millimetres? .....

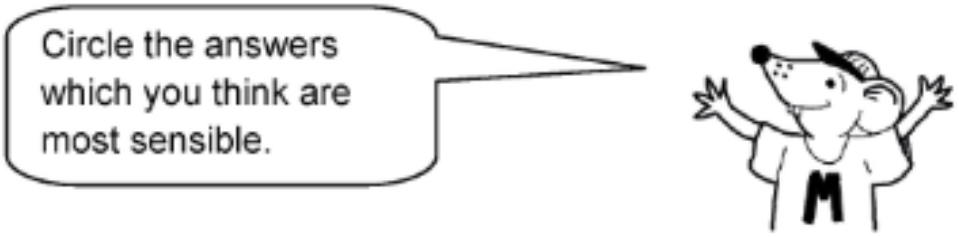
j. How many kilograms are there in 4 000 grams? .....

k. How many metres are there in 800 centimetres? .....

Can you convert these measurements to smaller units?

1. 5 m = ☐ cm
2. 7 m = ☐ cm
3. 8 m = ☐ cm
4. 10 m = ☐ cm
5. 5 cm = ☐ mm
6. 7 cm = ☐ mm
7. 4 cm = ☐ mm
8. 10 cm = ☐ mm
9. 3 km = ☐ m
10. 2 km = ☐ m
11. 6 km = ☐ m
12. 8 km = ☐ m
13. 1 m = ☐ mm
14. 7 m = ☐ mm
15. 3 m = ☐ mm
16. 9 m = ☐ mm

What do you think?



1. A potato weighs about	20 g	200 g	2000 g	20 k
2. The width of a finger is about	1 mm	10 mm	10 cm	10 m
3. A can of drink holds about	3 ml	33 ml	330 ml	3 litres
4. The length of a pen is about	14 cm	140 cm	1.4 m	14 m
5. A jug of water holds	1 ml	10 ml	100 ml	1000 ml
6. The height of a car is about	15 mm	150 mm	15 cm	150 cm
7. The height of a door is about	2 cm	2 m	20 m	200 m
8. A jar of coffee holds	10 g	20 g	200 g	200 kg
9. A large packet of cereal contains	10g	75g	750 g	7.5 kg
10. A bottle of lemon squash contains	20 ml	200 ml	1 litre	50 litres