4- and 5-digit numbers

2814   5104   3011   3926
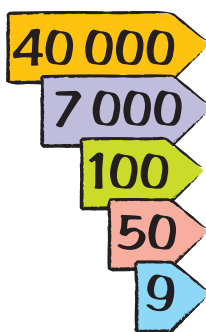
These numbers all have four digits. This shows that they are all in the 'thousands'. 21 394 has five digits.

T T h	Th	H	T	U
2	1	3	9	4

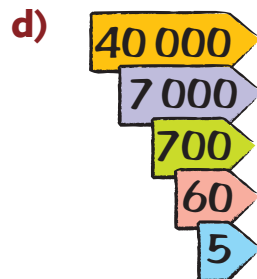   20 000   +   1000   +   300   +   90   +   4

Twenty-one thousand three hundred and ninety-four

1 These arrow cards show the value of each digit.

40 000
7 000
100
50
9

4 7 1 5 9 → 47 159

Write the number shown by each set of cards.

a)
50 000
9 000
200
30
1

b)
80 000
2 000
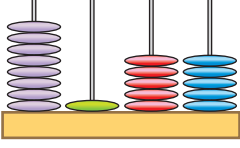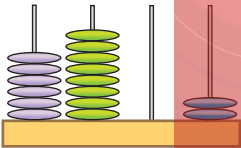400
80
7

c)
10 000
6 000
900
70
2

d)
40 000
7 000
700
60
5
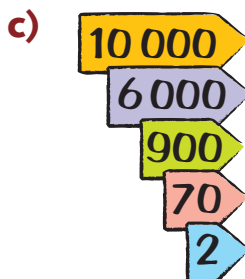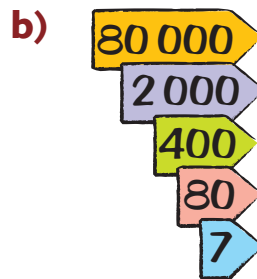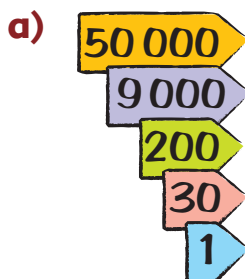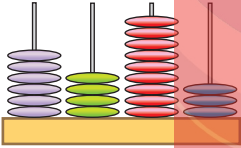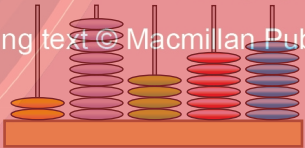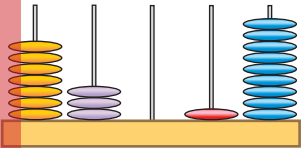
2 Copy the sentences, replacing the number words with numerals.
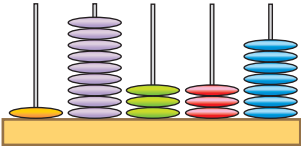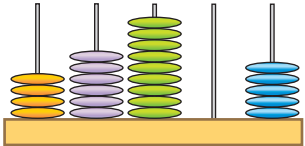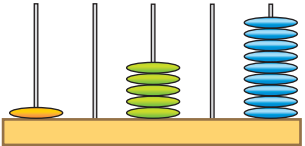
a) Approximately **two thousand two hundred people** visited the museum on its opening day.

b) The population of Inverness is approximately **fifty-one thousand** people.

c) The coastline of Egypt is approximately **two thousand four hundred and fifty** kilometres in length.

d) Approximately **two-hundred and forty-five thousand** people live in Bergen.

e) One of Jordan's highest mountain is Jabal Rami. It is **one thousand seven hundred and thirty-four** metres high.

1734

2200

2450

51 000

245 000

3 Write the number shown on each abacus.

a)
b)
c)

d)
e)
f)

g)
h)
i)

Try this

Which different numbers can you make on this abacus with five beads?
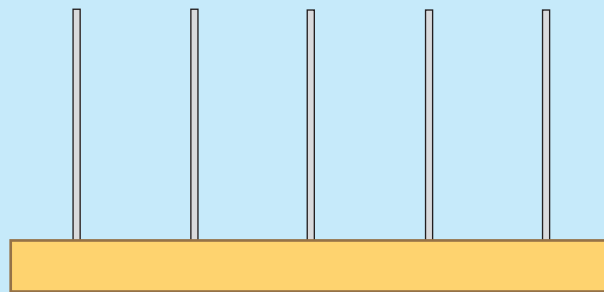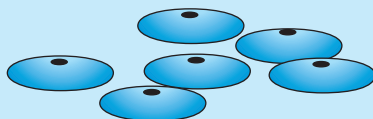
Thousands

A place value chart helps us read large numbers.

THOUSANDS			ONES		
hundreds	tens	units	hundreds	tens	units
4	1	7	3	6	9

417 369 is read as 417 thousand 369

400 000 + 10 000 + 7000 + 300 + 60 + 9 = 417 369

1 Complete this table.

	THOUSANDS			ONES		
	hundreds	tens	units	hundreds	tens	units
65 thousand 245 →						
100 thousand 180 →						
645 thousand →						
189 thousand 210 →						
450 thousand 609 →						

2 Circle the digit in each number that represents the numbers written in words.

a) 6 6 7   6 6 7   sixty thousand

b) 3 4 3   4 3 4   three hundred thousand

c) 4 0 4   4 0 0   four hundred

d) 9 9 9   4 4 9   ninety thousand

e) 5 8 8   5 8 8   eight thousand

f) 6 0 6   0 6 0   six hundred thousand

3 Write the value of each number shown by the arrow cards.

Example

➔   40 000 + 2000 + 800 + 50 + 3 = 42 853   `42 8 5 3`

a) `3 2 4 9 8`

b) `4 0 7 7 3`

c) `9 1 1 2 0`

d) `6 1 3 8 5`

e) `4 3 2 6 7 1`

f) `9 4 3 0 0 8`

g) `3 1 4 4 9 8`

h) `6 5 1 7 0 9`

Try this

These dials show the amount of electricity used in a building. It is measured in kilowatt hours (kWh).
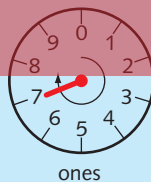
Kilowatt hours (kWh)

thousands   hundreds   tens   ones

2000 + 500 + 60 + 7 = 2567 kWh

How much electricity is used in these?

a)

b)
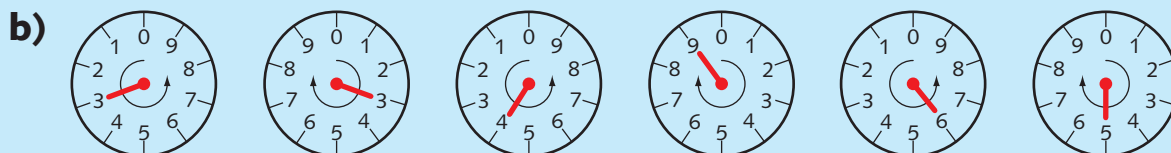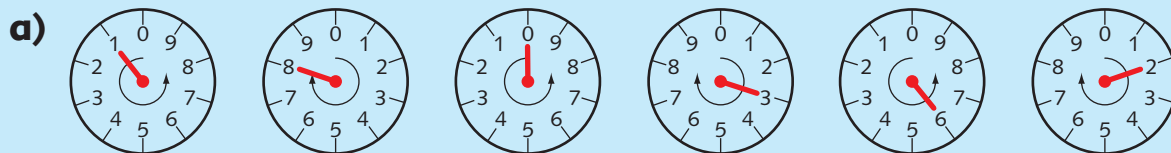
Millions

1 more than 999 999 is 1 million.
1 million is written as 1 000 000.
Use this chart to help you read numbers greater than 1 million.

MILLIONS			THOUSANDS			ONES		
hundreds	tens	units	hundreds	tens	units	hundreds	tens	units
		7	8	4	9	2	1	8

7 849 218 is read as 7 million 849 thousand 218
7 000 000 + 800 000 + 40 000 + 9000 + 200 + 10 + 8 = 7 849 218

1 Read these and write each as a number.

a) seven million four hundred thousand nine hundred and twenty-five

b) nine million one hundred and eighteen thousand and seventy-nine

c) two million four hundred thousand

d) thirteen million two hundred and ninety thousand five hundred and ninety-one

e) twenty million four hundred thousand two hundred and fourteen

f) twelve million one thousand three hundred and ninety

g) one hundred and forty million two thousand and eight

h) one hundred and twenty-seven million four hundred thousand two hundred and seventy

2 Write each of these numbers as words.

a) 4 785 141

b) 1 513 930

c) 4 690 081

d) 6 243 225

e) 3 912 198

f) 5 006 702

3 Circle the correct digit in each number to match the value.

Example

1 0 9 7 ③9 3   **three hundred**

a) 1 9 6 7 9 2 9   **nine hundred thousand**

b) 4 2 2 8 0 8 2   **twenty thousand**

c) 3 3 9 3 8 8 0   **three million**

d) 5 5 5 0 1 2 5 7   **five hundred thousand**

e) 1 1 1 0 0 9 2 0   **ten million**

f) 8 8 2 8 4 1 6 6   **eight million**

Try this

Estimate whether you could do each of the following tasks.
Use a calculator to help check your estimates.
Write how you decided on your answer.

Is it possible to read one million pages of a book in one year?

Could you walk one million strides in a day?
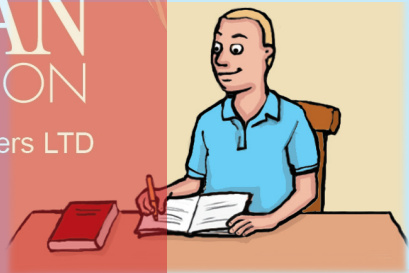
Will you have spent one million hours at school by the time you leave?

If you saved $5 each week for a lifetime, would it be possible to save $1 million dollars?

Would you be able to lift a book which had one million pages?

Would 100 jumps be longer than one million pins?

Comparing and ordering

When you put numbers in order, compare each digit, starting with the digits with the largest place value. These are the digits on the **left** of the number.
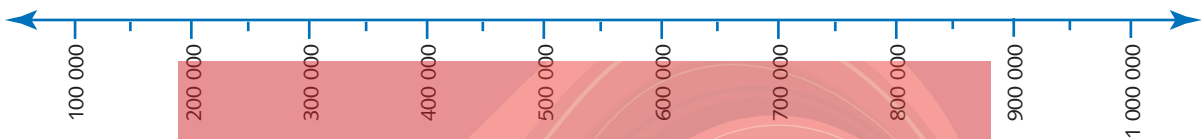
Put these in order, starting with the smallest.

1 782 955   460 400   1 278 101

460 400 < 1 278 101 < 1 782 955

1 Join these numbers to the correct position on the number lines.

a) 200 000   450 000   650 000   800 000

b) 960 000   965 000   980 000   995 000

2 Write each set of numbers in order, using the signs < or >.

Starting with the smallest

_____< _____<_____

Starting with the largest

_____> _____>_____

a) 493 751   610 028   4 901 122

b) 7 400 321   3 912 249   3 934 007

c) 14 321 111   380 956   514 090 012

d) 1 904 094   193 409 670   93 023 406

e) 9 419 712   3 012 819   4 622 093

f) 3 193 444   7 129 028   56 023 450

g) 19 921 803   53 291 001   6 490 212

h) 1 198 491   1 198 409   119 842 994

3 Here are the estimated populations of some of the largest cities in the world.

Write the cities in order of population, starting with the largest.

Mexico City
Mexico
22 843 550

Seoul
South Korea
21 735 390

Cairo
Egypt
15 837 460

Manila
Philippines
16 608 340

New York
USA
22 310 740

Moscow
Russia
14 432 190

Mumbai
India
19 463 950

London
UK
12 412 330

Tokyo
Japan
35 521 740

Shanghai
China
16 708 510

Try this

Investigate the populations of other cities around the world.
Which capital cities have the largest and smallest populations?

Rounding and approximation

Rounding makes numbers easier to work with – changing them to the nearest 10, 100, 1000, 10 000 or 100 000.

Example	nearest 10	nearest 100	nearest 1000	nearest 10 000
343 565	343 570	343 600	344 000	340 000

1 Complete this table.

	a) Round to the nearest 100	**b)** Round to the nearest 1000	**c)** Round to the nearest 10 000
41 653			
29 832			
60 157			
29 129			
845 235			
628 536			
745 834			
294 258			

2 Write the smallest and largest numbers that will give the following.
   a) 15 000 when rounded to the nearest thousand
   b) 2 800 000 when rounded to the nearest hundred thousand
   c) 16 200 000 when rounded to the nearest ten thousand
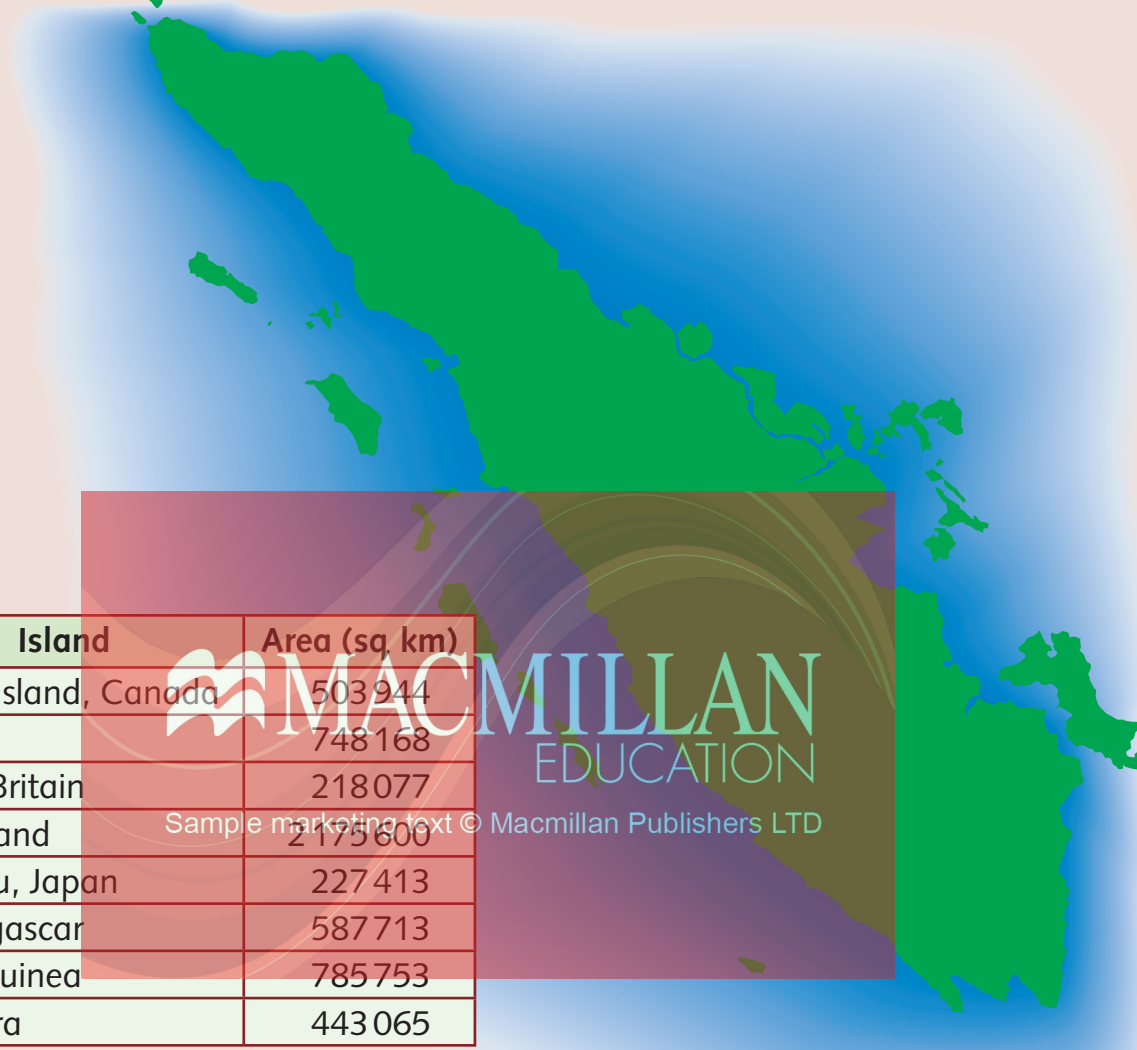   **d)** 900 000 when rounded to the nearest ten thousand

3 Copy this out, rounding each number to the nearest thousand.
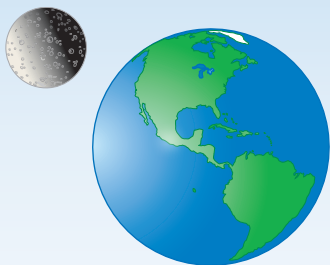
The Moon is 405 696 kilometres away from the Earth at its furthest distance. When it is at its nearest it is 363 104 kilometres away. The Moon is 10 921 kilometres all the way around. The Earth is about four times bigger, with a distance of 40 075 kilometres around the equator.

These are some of the largest islands on our planet.
The area of each of them is given in square kilometres.

Island	Area (sq km)
Baffin Island, Canada	503 944
Borneo	748 168
Great Britain	218 077
Greenland	2 175 600
Honshu, Japan	227 413
Madagascar	587 713
New Guinea	785 753
Sumatra	443 065

1 Which island has an area of two hundred and eighteen thousand and seventy-seven kilometres?
2 Which is the larger island, New Guinea or Borneo?
3 Write the islands in order of size, starting with the largest.
4 Round each of the areas to the nearest thousand.

Try this

Egypt has an area of 997 739 square kilometres.
What is this rounded to the nearest 10, 100, 1000, 10 000 and 100 000?