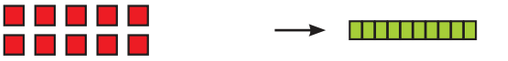
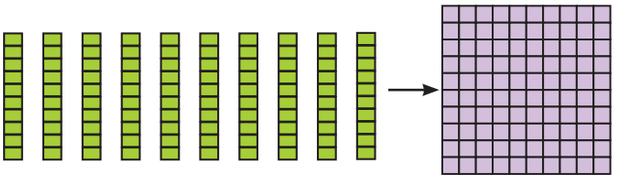
1

Numbers

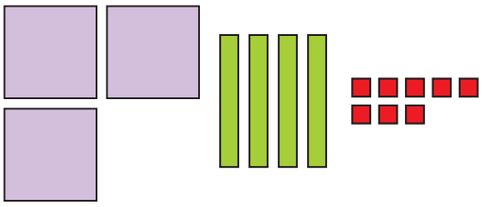
Check What I Know

1. Fill in the blanks.

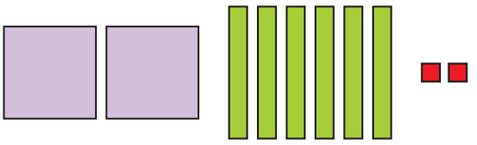
a) 10 ones make 1 _____ 

b) 10 tens make 1 _____ 

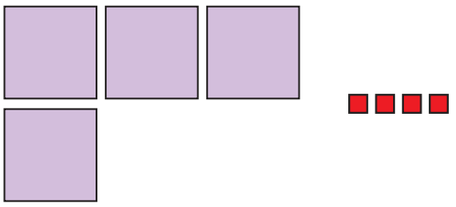
2. Write the number and number name.

a) 

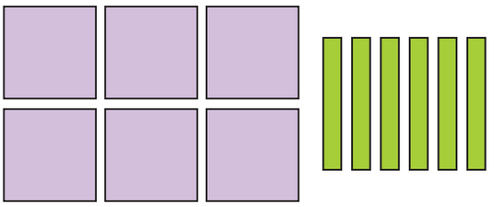
_____

b) 

_____

c) 

_____

d) 

_____

3. Write the number and number name.

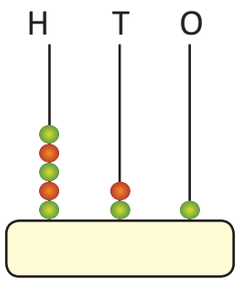
a) 6 hundreds + 7 tens + 5 ones = _____

b) 4 hundreds + 8 tens = _____

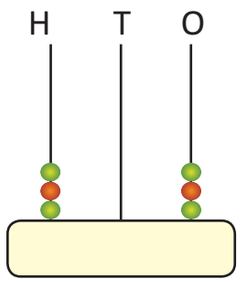
c) 7 hundreds + 9 ones = _____

4. Write the number shown on each abacus.

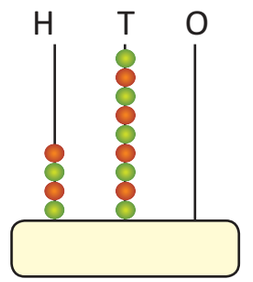
a)



b)



c)



5. Write the expanded form.

a) 555 = _____ + _____ + _____

b) 990 =

c) 403 =

d) 800 =

6. Write the face value and the place value of the digit in red.

		Face value	Place value			Face value	Place value
a)	295			b)	240		
c)	601			d)	560		

7. Fill in the ◯ with >, < or =.

a) 176 ◯ 167 b) 485 ◯ 496 c) 990 ◯ 99

d) 708 ◯ 780 e) 650 ◯ 650 f) 123 ◯ 321

8. Write the numbers in ascending (increasing) order.

a) 272, 384, 96, 504

b) 634, 291, 388, 275

c) 405, 400, 419, 401

9. Write the numbers in descending (decreasing) order.

a) 184, 289, 753, 99

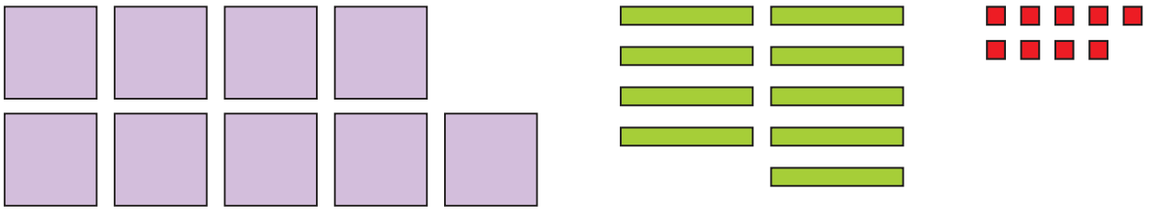
b) 738, 138, 384, 761

c) 95, 91, 109, 99, 100

Thousand

Rita has a big stamp collection. She has 999 stamps.

999 is 9 hundreds + 9 tens + 9 ones.



Her friend Anand gave her one more stamp.

How many stamps does she have now?

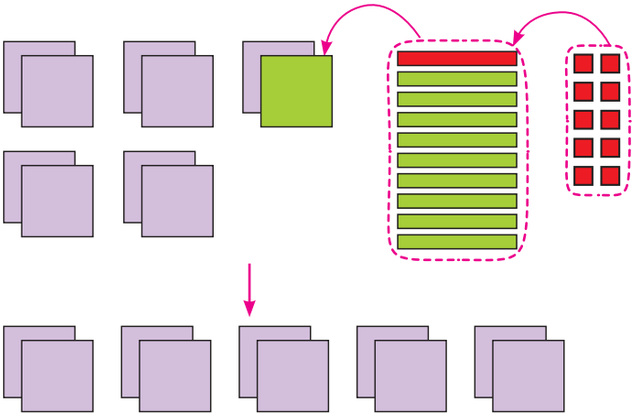
How much is 999 + 1?

She has 9 hundreds + 9 tens + 10 ones

= 9 hundreds + 10 tens

= 9 hundreds + 1 hundred

= 10 hundreds



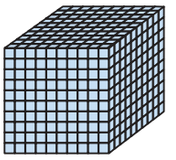
10 hundreds together make **1 thousand**.

We write 1 thousand as **1000**.

So 999 + 1 = 1000.

1000 is a 4-digit number.

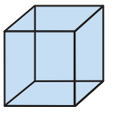
Th	H	T	O
1	0	0	0



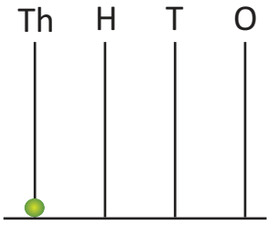
Rapid check

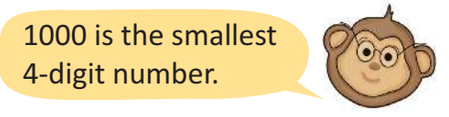
10 hundreds = _____ thousand

Let us represent 1000 as:



1000 is shown on the abacus as:





To show 1000 we use an abacus with four spikes.

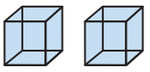
The spike on the left of the 'Hundreds' spike is labelled 'Thousands' or 'Th'.

Counting in thousands

Fill in the blanks.

1 thousand

Th	H	T	O
1	0	0	0

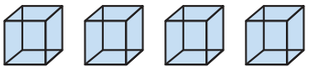


2 thousands

Th	H	T	O
2	0	0	0

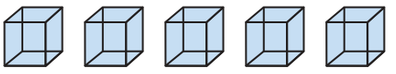
3 thousands

Th	H	T	O
3	0	0	0



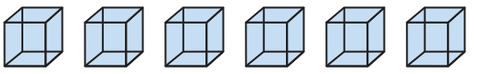
4 thousands

Th	H	T	O



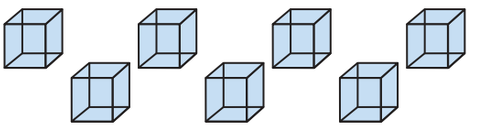
5 thousands

Th	H	T	O



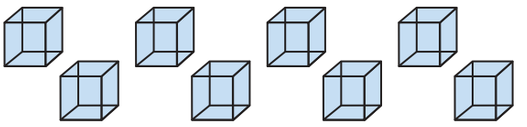
6 thousands

Th	H	T	O



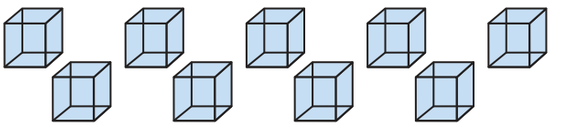
7 thousands

Th	H	T	O



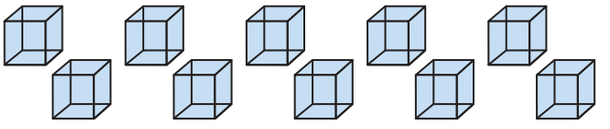
8 thousands

Th	H	T	O



9 thousands

Th	H	T	O



10 thousands

T Th	Th	H	T	O
1	0	0	0	0

10 thousand or 10000 has five digits. We need five places to write it. It is the smallest 5-digit number.

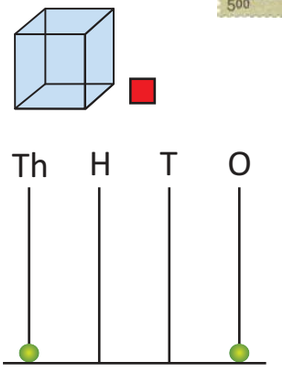
Building numbers beyond 1000

Rita has 1000 stamps.

Her father gave her 1 more stamp.

She now has 1000 + 1 = 1001 stamps.

1001 has 1 thousand, 0 hundreds, 0 tens and 1 one.

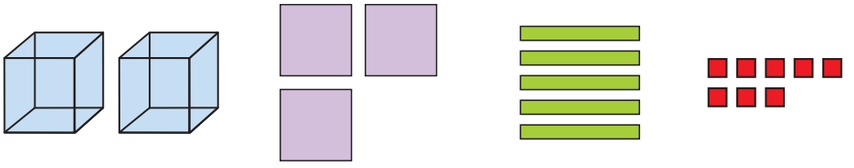


Th	H	T	O
1	0	0	1

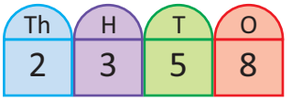
The number name for 1001 is **one thousand one.**

Look at these numbers.

a)



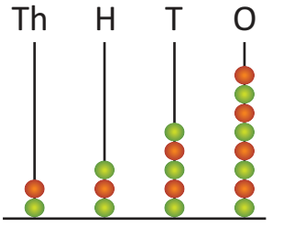
2 thousands 3 hundreds 5 tens 8 ones is



It is written as: 2 3 5 8

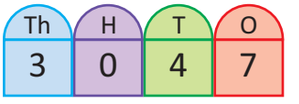
It is read as: Two thousand three hundred fifty-eight

It is shown on the abacus as:



b)

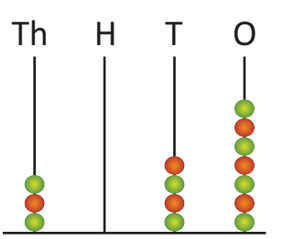
3 thousands 0 hundreds 4 tens 7 ones is



It is written as: 3 0 4 7

It is read as: Three thousand forty-seven

It is shown on the abacus as:

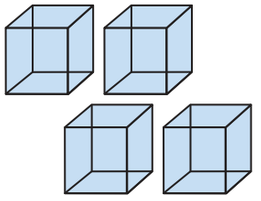


How will you read the following numbers?

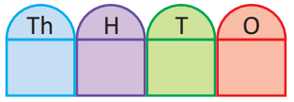
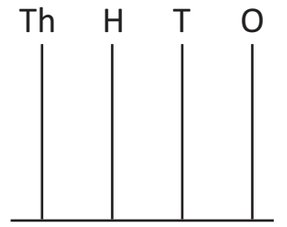
7508: _____ 8020 : _____

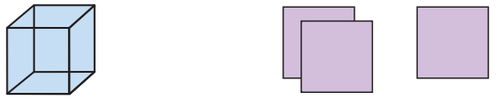
EXERCISE 1

1. Fill in the blanks and the table.

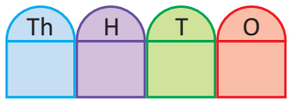
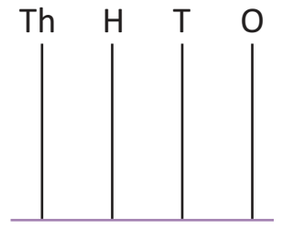
a) 

_____ thousands _____ hundreds _____ tens _____ ones

Number	Number name	Abacus
	_____ _____	

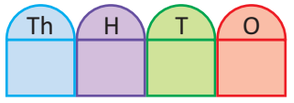
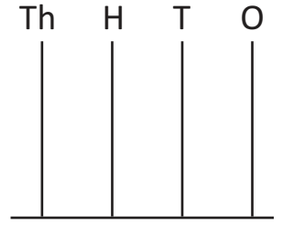
b) 

_____ thousands _____ hundreds _____ tens _____ ones

Number	Number name	Abacus
	_____ _____	

c) 

_____ thousands _____ hundreds _____ tens _____ ones

Number	Number name	Abacus
	_____ _____	

2. Write the number name.

a) 3711 = _____

b) 8094 = _____

c) 9502 = _____

d) 6777 = _____

(picture credit: vectorportal.com)

3. Write the numbers.

a) One thousand four hundred twenty = _____

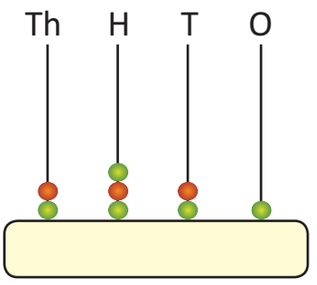
b) Nine thousand seventy-one = _____

c) Three thousand one hundred = _____

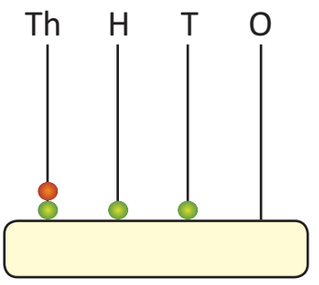
d) Seven thousand six hundred two = _____

4. Write the number shown on each abacus.

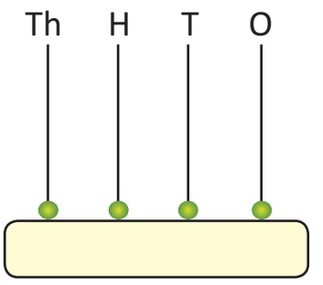
a)



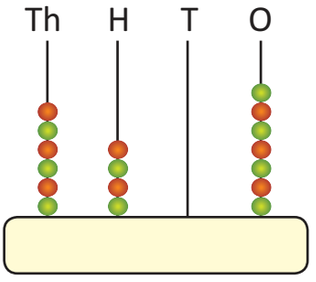
b)



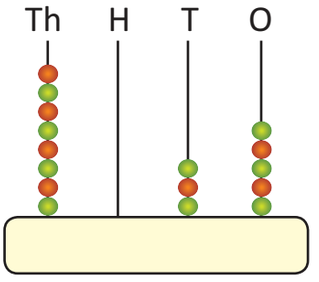
c)



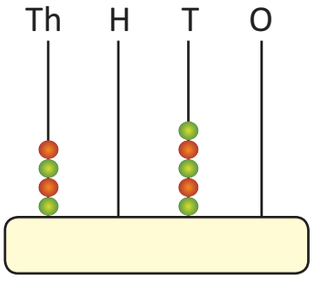
d)



e)

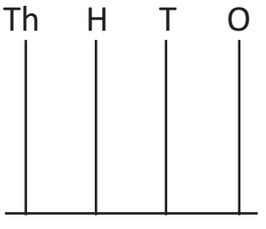


f)

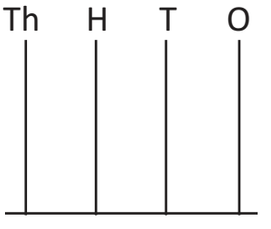


5. Show the number on the abacus.

a) 2314



b) 6203



c) 5430

Th	H	T	O

d) 2000

Th	H	T	O

6. Fill in the numbers in order.

a) 1087, 1088 , 1089 , _____ , _____ , _____ , _____

b) 4198, _____ , _____ , _____ , _____ , _____ , _____

c) 9829, _____ , _____ , _____ , _____ , _____ , _____

d) 5050, _____ , _____ , _____ , _____ , _____ , _____

e) 6104, _____ , _____ , _____ , _____ , _____ , _____

Face value and place value

8276 is a 4-digit number.

8 is in the thousands place.

Its place value in 8276 is 8 thousands or 8000.

Its face value in 8276 is 8.

2 is in the hundreds place.

Its place value in 8276 is 2 hundreds or 200.

Its face value in 8276 is 2.

7 is in the tens place.

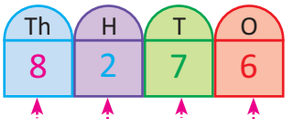
Its place value in 8276 is 7 tens or 70.

Its face value in 8276 is 7.

6 is in the ones place.

Its place value in 8276 is ones or 6.

Its face value in 8276 is 6.



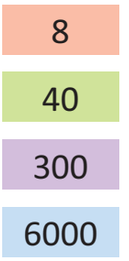
The **place value** depends on the place of the digit in the number.

The **face value** of a digit is the number itself. It remains the same in all places.

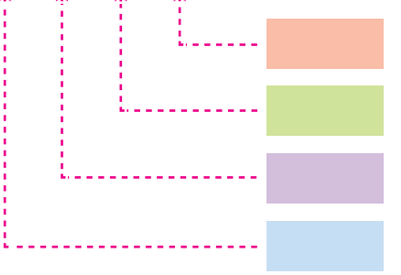
EXERCISE 2

1. Fill in the place values.

a) 6 3 4 8

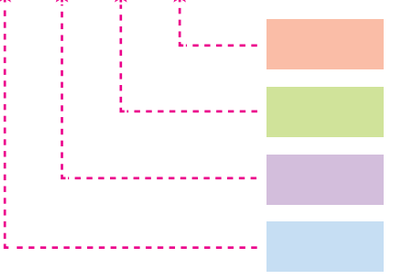


b) 1 7 8 3



c) 5 4 2 6

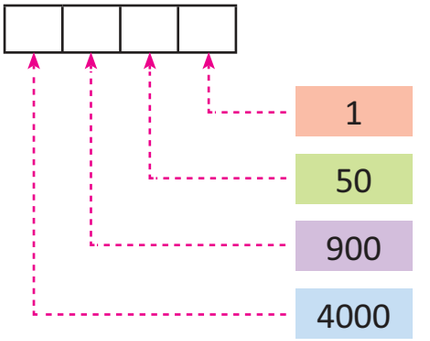
d) 3 6 0 4



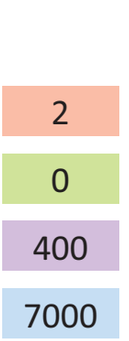
2. Write the numeral.

a)

b)



c)



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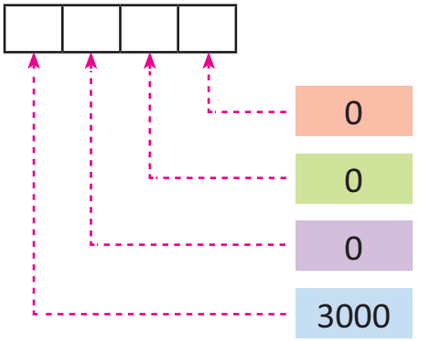


3. Write the place and place value of the digit in colour.

	Number	Place	Place value		Number	Place	Place value
a)	2436	tens		b)	3107	_____	
c)	7198	_____		d)	6497	_____	
e)	5010	_____		f)	5010	_____	

Expanded form

The expanded form of 7534 is:

7534 = 7 thousands + 5 hundreds + 3 tens + 4 ones (in words)

= 7000 + 500 + 30 + 4 (in figures)

EXERCISE 3

1. Write the expanded form in figures.

a) 3684 = 3000 + 600 + 80 + 4

b) 5079 = _____ + _____ + _____ + _____

c) 8173 = _____ + _____ + _____ + _____

d) 4682 = _____ + _____ + _____ + _____

e) 9590 = _____ + _____ + _____ + _____

The place value of the digit 0 in a number is always zero. So we always write '0' whatever may be its position in a number.

2. Write the number.

a) 7000 + 400 + 50 + 9 = _____

b) 6000 + 0 + 30 + 1 = _____

c) 1000 + 700 + 10 = _____

Comparing numbers

The junior school library has 5430 books. The senior school library has 4988 books. Which library has more books?

To answer this question you have to find which number is greater—5430 or 4988.

Remember!

> means 'greater than' < means 'less than' = means 'equal to'

54 > 50 50 < 54 50 = 50

Comparing numbers with different number of digits

The number with more digits is always greater.

Examples: 2125 > 949 3456 > 99 3878 > 8

Comparing numbers with the same number of digits

1. First compare the thousands digits. — 5468 > 4972 as 5 > 4
2. If the thousands digits are the same, compare the hundreds digits. — 7679 > 7590 as 6 > 5
3. If the thousands and hundreds digits are the same, compare the tens digits. — 8453 < 8472 as 5 < 7
4. If the thousands, hundreds and tens digits are the same, compare the ones digits. — 7536 > 7530 as 6 > 0

EXERCISE 4

1. Fill in the blanks with >, < or = signs.

a) 834 < 1590

b) 999 _____ 1000

c) 4375 _____ 4162

d) 5910 _____ 5911

e) 7832 _____ 7838

f) 8544 _____ 8544

2. Circle the greatest number.

a) 813 1001 9990 270

b) 1285 1055 1135 1288

c) 8461 8479 8439 8410

d) 98 1020 786 999

3. Circle the smallest number.

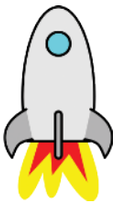
a) 296 8532 100 1795

b) 8421 2148 4813 1589

c) 7478 7470 7473 7474

d) 9305 953 1999 9315

4. Arrange the numbers in ascending order.



a) 3747 1674 9542

b) 8653 653 865

c) 8464 9894 3799 7877

d) 7582 7959 7166 7745

e) 3542 3561 3595 3519

5. Arrange the numbers in descending order.

a) 2143 4782 5365

b) 8104 7728 6540 4322

c) 5321 5877 5108 5233

d) 4492 4409 4465 4423

e) 9243 9212 9290 9277

Forming greatest and smallest numbers

Example: Form the greatest and the smallest 4-digit numbers using the digits:

7 6 0 9

To form the greatest 4-digit number, arrange the digits in decreasing order.

The greatest 4-digit number is: 9 7 6 0

To form the smallest 4-digit number, arrange the digits in increasing order. But you cannot have 0 in the thousands place, otherwise you get: 0 6 7 9 = 6 7 9 which is a 3-digit number.

So if there is a 0, put it in the hundreds place and not in the thousands place.

The smallest 4-digit number is: 6 0 7 9

EXERCISE 5

Use the given digits to make the smallest and the greatest 4-digit numbers.

		greatest number	smallest number
a)	4, 3, 7, 1		
b)	6, 5, 0, 9		
c)	1, 0, 7, 3		
d)	8, 1, 1, 5		

Odd and even numbers

You have read in Class 2 that:
Numbers that can be divided by 2, are called **even numbers.**
Numbers that cannot be divided by 2, are called **odd numbers.**

Even numbers have
0, 2, 4, 6 or 8
in the ones place.

Odd numbers have
1, 3, 5, 7 or 9
in the ones place.

EXERCISE 6

Colours the boxes with even numbers green. Colour the boxes with odd numbers blue.

67	677	776	600	700	701
2425	2426	2427	2428	2429	2430
8000	8001	8011	8022	8123	8888
5670	7650	7561	5761	5055	5550

Predecessor–Successor

355 356 357

355 comes just before 356.
355 is the **predecessor** of 356.
We get the predecessor by subtracting 1 from the number.
355 = 356 – 1

357 comes just after 356.
357 is the **successor** of 356.
We get the successor by adding 1 to the number.
357 = 356 + 1

EXERCISE 7

Write the numbers.

	Predecessor	Between	Successor
a)	3163	3164	3165
b)	9479	_____	9481
c)	5788	5789	_____
d)	_____	5130	_____
e)	_____	7399	_____

Mixed Bag

(Concept, skill, application and thinking based)

1. Choose the correct answer.

a) The smallest 4-digit number is:

i. 1111 ii. 1000 iii. 0001 iv. 1001

b) The greatest 4-digit number is:

i. 9990 ii. 9999 iii. 10000 iv. 9000

c) The smallest 4-digit number formed by the digits 6, 0, 0, 9 is:

i. 0069 ii. 6009 iii. 9006 iv. 6900

d) The face value of 5 in 3567 is:

i. 5000 ii. 500 iii. 50 iv. 5

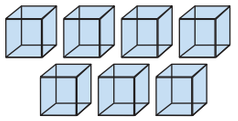
e) Which is the largest 4-digit even number?

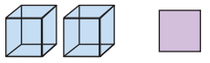
i. 9999 ii. 9998 iii. 9000 iv. 10000

f) The place value of 0 in 6079 is:

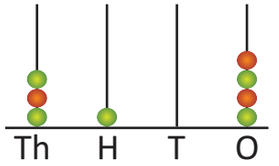
i. 0 ii. 10 iii. 100 iv. 1000

2. Write the number and the number name.

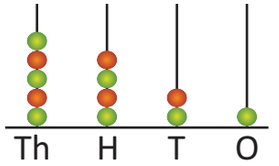
a)  _____ _____

b)  _____ _____

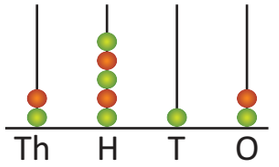
c)  _____ _____

d) 

_____ _____

e) 

_____ _____

f) 

_____ _____

3. Write the face value and place value of the digit in red.

		face value	place value
a)	7 5 9 6	_____	_____
b)	8 2 0 1	_____	_____
c)	1 3 5 5	_____	_____
d)	7 4 2 0	_____	_____
e)	5 0 8 5	_____	_____

4. Write in the expanded form.

a) 9 4 7 3 = 9 Th + 4 H + 7 T + 3 O = 9000 + 400 + 70 + 3

b) 7 7 8 2 = _____ Th + _____ H + _____ T + _____ O = _____

c) 4 8 0 3 = _____ Th + _____ H + _____ T + _____ O = _____

d) 6 2 0 0 = ____ Th + ____ H + ____ T + ____ O = _____

e) 8 0 7 0 = ____ Th + ____ H + ____ T + ____ O = _____

5. Fill in the blanks with <, >, or =.

a) 4359 ____ 682 b) 9833 ____ 3601 c) 3647 ____ 3647

d) 5906 ____ 5449 e) 8859 ____ 8853 f) 6938 ____ 6939

6. Arrange in ascending order.

a) 4563 5368 3616 6805 ____ ____ ____ ____

b) 2506 2560 2056 2755 ____ ____ ____ ____

c) 5009 5090 5900 5823 4999 ____ ____ ____ ____ ____

d) 9091 9109 9901 9190 9019 ____ ____ ____ ____ ____

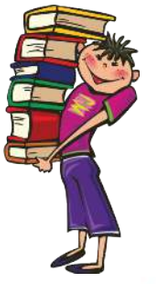
7. Arrange in descending order.

a) 7493 8962 5449 3609 ____ ____ ____ ____

b) 7306 7603 7036 3760 ____ ____ ____ ____

c) 3892 3961 3691 3040 3400 ____ ____ ____ ____ ____

d) 6311 6113 6613 6331 6111 ____ ____ ____ ____ ____



8. Circle the numbers in which the place value of 2 is 200.

a) 5327 b) 7297 c) 8126 d) 6632

e) 8200 f) 4123 g) 5219 h) 7236

9. Applying 4-digit numbers (story sums)

a) Ashok's school fee is ₹ 3456 per month. While paying, the tens and hundreds digits got interchanged. Did Ashok's parents have to pay less or more than the actual fee?

b) Vijay and Ajay went jogging in the morning. Vijay took 1056 steps. Ajay took 1065 steps. Who took more steps?

c) Sahiba bought a sweet for ₹ 1. She gave a ₹ 500 note to the shopkeeper. How much money did the shopkeeper return to her?

d) Mamta wants to buy a dress that costs ₹ 2450. She has one ₹ 2000 note and one ₹ 500 note. Does she have enough money to buy the dress?

Mental Maths

FA

What is:

1. 1 less than	2. 1 more than	3. 10 less than	4. 10 more than
a) _____ 4783	a) 3862 _____	a) _____ 6580	a) 2004_____
b) _____ 5604	b) 7000 _____	b) _____ 7933	b) 7952_____
c) _____ 3299	c) 5999 _____	c) _____ 8591	c) 3491_____

5. 100 less than	6. 100 more than	7. 1000 less than	8. 1000 more than
a) _____ 7542	a) 2891_____	a) _____ 9284	a) 8049 _____
b) _____ 6135	b) 6013_____	b) _____ 5009	b) 1450 _____
c) _____ 8085	c) 5940_____	c) _____ 1676	c) 999 _____

Cross-curricular Questions

FA

The four highest mountains in the world have the following heights from sea level. Arrange them in descending order.

Mount Godwin Austen: 8611 metres

Lhotse: 8516 metres

Mount Everest: 8848 metres

Kanchenjunga: 8586 metres

Hots

FA

1. If you add 1 to the greatest 4-digit number, what do you get?

2. What is the difference between the successor and predecessor of a number?

3. Which is the smallest 4-digit number in which all digits are different?

4. Which is the greatest 4-digit number in which all digits are different?

Problem Solving

FA

Manav and his three neighbourhood friends were born in the following years.

Manav: 2000 Manisha: 1997 Arnav: 2004 Somya: 1999

Arrange the children's names in ascending order of their **ages**.

Fun Activity

FA

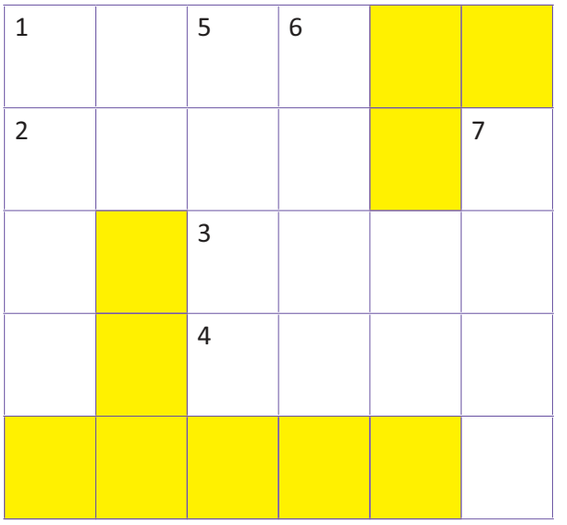
Solve the crossword puzzle.

Across

1. 100 more than 3128
2. The successor of 999
3. Five thousand six hundred four
4. 10 more than 2000

Down

1. Counting in thousands, the number before 4125.
5. 2 thousands 5 tens 2 ones
6. Eight thousand sixty
7. The number between 5400 and 5402.



Project

FA

Find out the lengths of five of the world's longest rivers in kilometres. Arrange the lengths in descending order.

You can find the lengths from the site: http://en.wikipedia.org/wiki/List_of_rivers_by_length

Maths Lab Activity

FA

Objective: To form 4-digit numbers

Material required: Number cards 0–9, made on cardboard

Method: Let students work in groups of five. Give each group a set of number cards 0–9. Let them make 4-digit numbers using the cards.

- One student in the group makes ten 4-digit numbers beginning with 1, by arranging the three other cards.
- The second student records each number in figures.
- The third student records them in words.
- The fourth student records them in expanded form.
- The fifth student identifies the greatest and smallest numbers made.

Change the duties allotted to the students, with the second student making numbers beginning with 2, and so on.