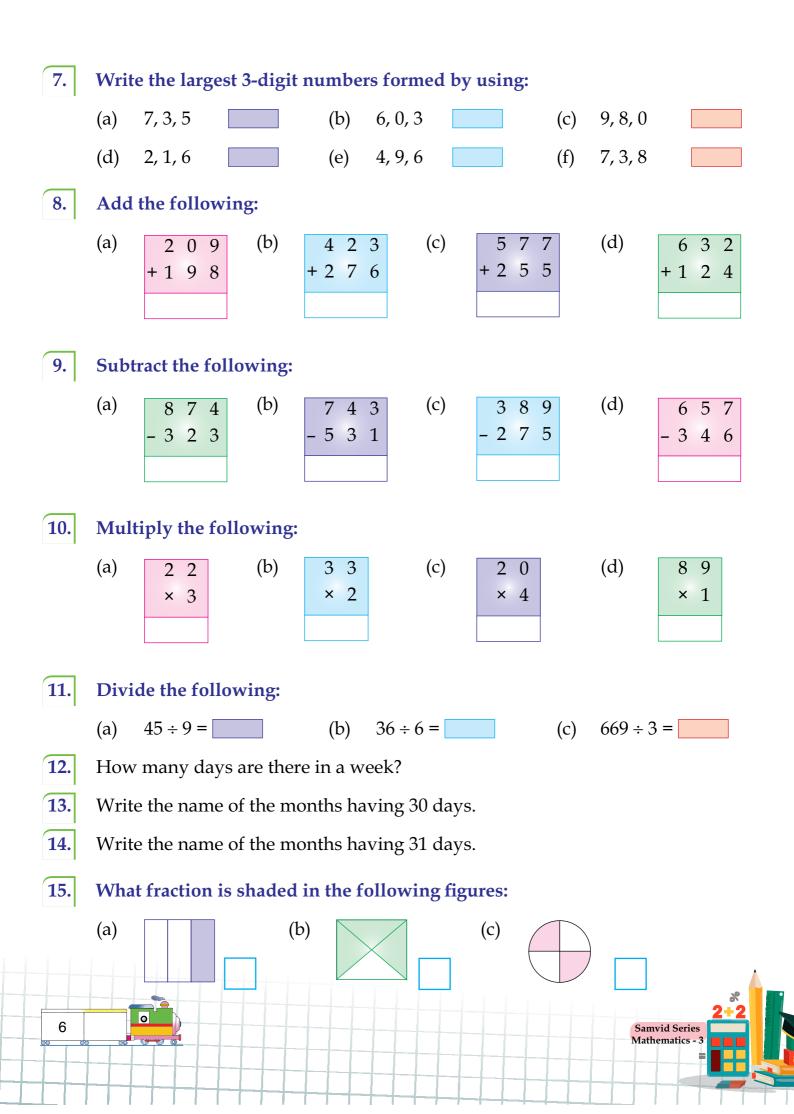


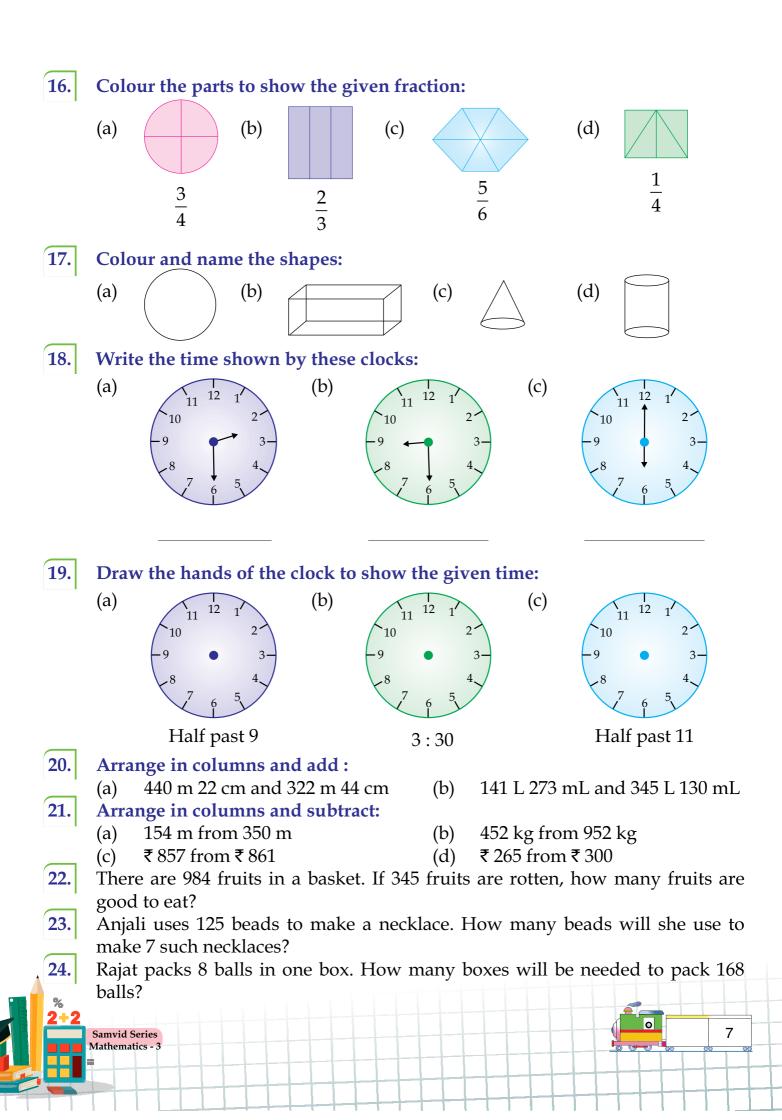
-

Reminder of Pre-Class

Let's see how much you remember, about what you studied in the previous class.

		Number				Numbe	r nam	e		
(a)		458								
(b)			Thr	ee hur	dred	ninety-si	x			
(c)		763								
(d))	592								
(e)	1					enty-five				
(f)			Nir	ne hun	dred s	even				
Put >	>, < or = §	sign approp	riately	:						
(a)	286	315 (b)	817	986	(c) 311	309	(d)	281	268
Arra	nge the f	ollowing n	umbers	s in asc	endin	g order:				
(a)	Ŭ	, 127, 729, 2				0				
(b)	438, 848	, 343, 834, 6	50							
Arra	nge the f	ollowing n	umbers	s in de	scendi	ng order				
(a)	Ŭ	, 552, 255, 3				0				
(b)	-	, 438, 834, 6								
Writ	e these n	umbers in t	he exp	anded	form:					
(a)			-			521 = _				
(c)					· · /	786 =				
Find	the plac	e value of t	he colo	ured d	ioit:					
	23 <mark>6</mark>		(b)	4 <mark>0</mark> 2	-9		(c)	5 9 0		
(a)			(e)	73 <mark>0</mark>			(f)	7 <mark>5</mark> 1		
(a) (d)	301		<u>\</u>						11	
(a) (d)	5 <mark>6</mark> 1									
	301									
. ,	eries									5







Reminder

Numbers play an important role in our life. We use numbers to represent various things in our daily life.

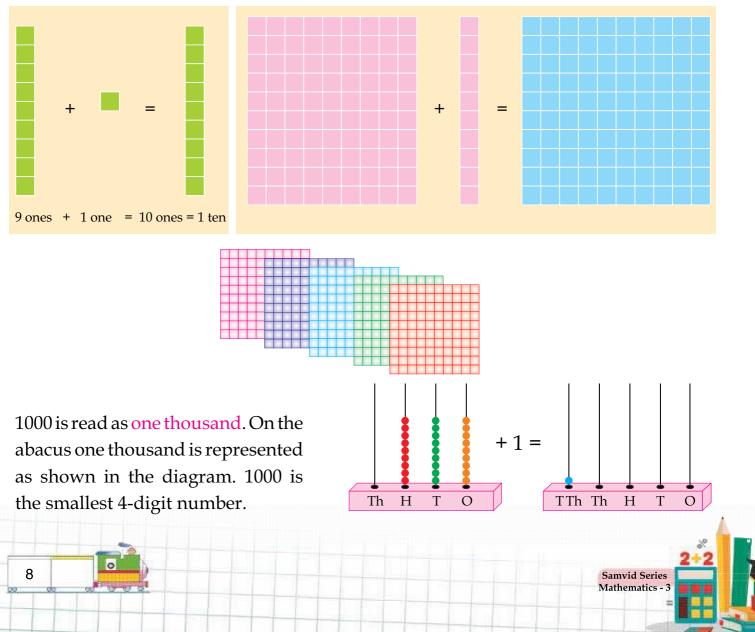
In class II, we have learnt how to read and write numbers up to 1000.

We know that,

Largest 1-digit number +1 = 9 + 1 = 10, smallest 2-digit number

Largest 2-digit number +1 = 99 + 1 = 100, smallest 3-digit number

Largest 3-digit number +1 = 999 + 1 = 1000, smallest 4-digit number



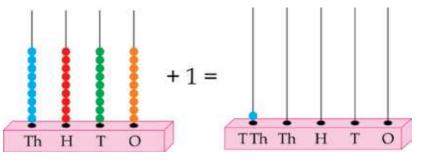
Numbers beyond 1000

In class III, we shall begin our number journey from 1000 + 1, *i.e.*, 1001. We can form numbers with different digits. We can obtain each number after 1000 by adding 1 to that number.

Examples:

-										
1000	+	1	=	1001 (One thousand one)						
1001	+	1	=	1002	(One thousand two)					
1002	+	1	=	1003	(One thousand three)					
1009	+	1	=	1010	(One thousand ten)					
1010	+	1	=	1011	(One thousand eleven)					
1098	+	1	=	1099	(One thousand ninety-nine)					
1099	+	1	=	1100	(One thousand one hundred)				
1100	+	1	=	1101	1101 (One thousand one hundred one)					
1198	+	1	=	1199	(One thousand one hundred ninety-nine)					
1199	+	1	=	1200	One thousand two hundred)				
1999	+	1	=	2000	(Two thousand)					
2999	+	1	=	3000	(Three thousand)					
9998	+	1	=	9999	(Nine thousand nine hundre	d ninety-nine)				
				9999 is	the greatest four-digit number.					
					$\theta + 1 = 10,000$ (Ten thousand)					
					is the smallest 5-digit number.					
				10,000	is the smallest s-digit nulliber.					

On the abacus ten-thousand is represented as shown in the diagram:



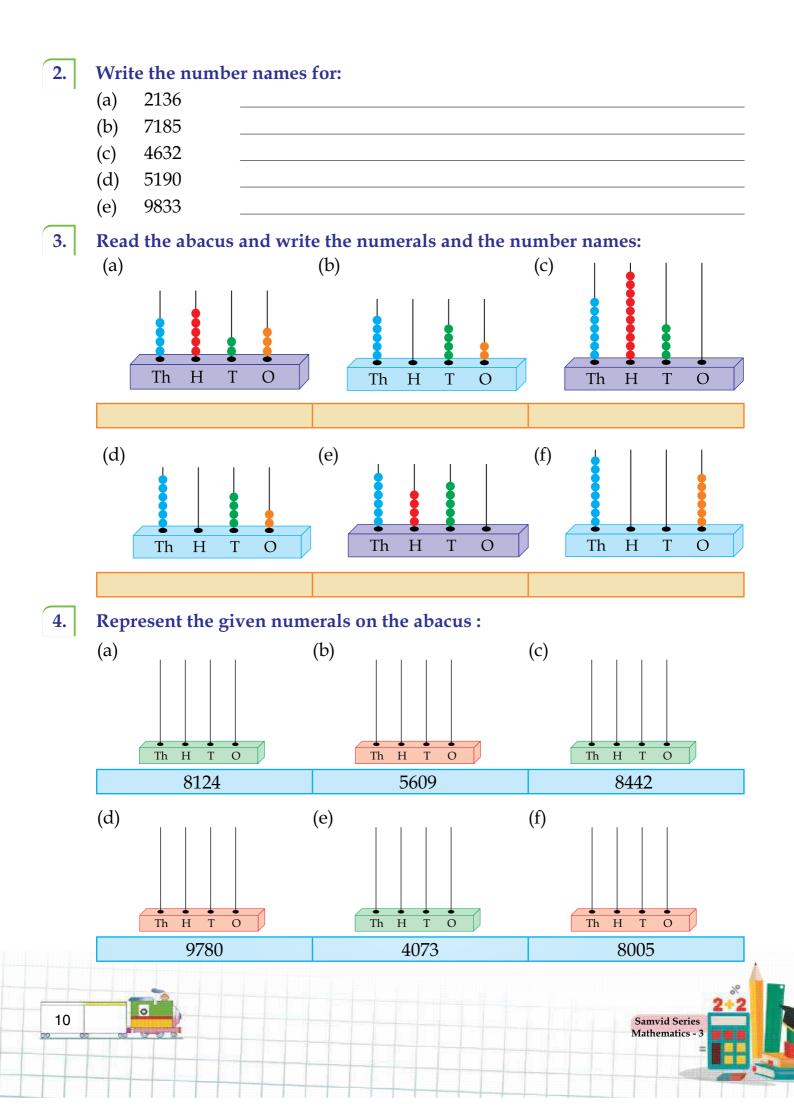
9

Test Prep 2.1

Samvid Series Mathematics - 3

1. Write the numerals for:

- (a) Three thousand four hundred thirteen
- (b) Four thousand seven hundred three
- (c) Nine thousand two hundred five
- (d) Eight thousand nine hundred twenty-five
- (e) Seven thousand three hundred four



Place Value and Face Value

- The place value of a digit in a number depends on the place where it occurs in a number.
- The face value of a digit in a number is the value of the digit itself at whatever place it may be .

Example: Consider the number 9658.

Arrange the digits in the place value chart as shown below:

Th	Η	Т	0
9	6	5	8

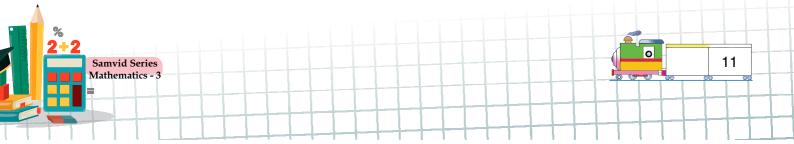
Pick Up 1. As you move to the left in a number, the place value keeps increasing by ten times.

2. The place value of 0 is always 0, whatever place it may be.

Expanded Form and Short Form

- The expanded form of a number is the sum of its various place values.
- The standard form of a number is obtained when we combine the face values of all the digits.
 Example : Consider the number 4837.

Place Value Chart									
Th H T O									
4	4 8 3 7								



	= 4 thousands + 8 hundreds + 3 tens + 7 ones
Example: V	Vrite the following numbers in the expanded form: (a) 4320 (b) 9703 (c) 7086
Solution:	(a) 4320 (b) 9703 (c) 7086 (a) $4320 = 4000 + 300 + 20$
/0141011	= 4 thousands + 3 hundreds + 2 tens
	(b) $9703 = 9000 + 700 + 3$
	= 9 thousands + 7 hundreds + 3 ones
	(c) $7086 = 7000 + 80 + 6$
	= 7 thousands + 8 tens + 6 ones
📃 Test	Prep 2.2
1. Write	e the place value of the coloured digits:
(a)	1432 (b) 8923 (c) 3894 (d) 3265
(e)	2570 (f) 8049 (g) 9061 (h) 7305
	e expanded form of these numbers, write the missing digits:
(a)	7206 =thousands +hundreds +tens +ones
(b)	4049 = thousands + hundreds + tens + ones
(c)	8960 = thousands + hundreds + tens + ones
(d)	9853 = thousands + hundreds + tens + ones
3. Write	e each of the following in the expanded form:
(a)	1576 = + + + +
(b)	3205 = + + + +
(c)	6027 = + + + +
(d)	7243 = + + + +
4. Write	e each of the following in the short form:
(a)	4000 + 50 + 6 = (b) $2000 + 200 + 2 =$
(c)	5000 + 200 + 40 + 7 = (d) $6000 + 8 =$
(-)	
12	Samvid Series Mathematics - 3

5. Write the numbers with the following ones, tens, hundreds and thousands. One has been done for you:

(a)	(b)	(c)	(d)
7 thousands	8 tens	3 thousands	6 hundreds
2 hundreds	3 ones	4 ones	9 tens
0 tens	2 thousands	5 tens	0 ones
8 ones	5 hundreds	9 hundreds	4 thousands
(7208)			

Comparing Numbers

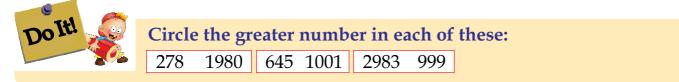
To compare 4-digit numbers, follow the given rules:

Different number of digits

If two numbers to be compared have different number of digits, then the number with more digits is greater.

Example 1: Which one is greater: 1023 or 595?

Solution: 1023 has 4 digits while 595 has 3 digits. So 1023 is greater.



Same number of digits

Samvid Series Aathematics - 3

If two numbers have the same number of digits, follow these steps:

- **Step 1**: First compare the digits at the leftmost place.
- **Step 2**: If they are equal, compare the second digits from the left.
- Step 3 : If the second digits from the left are also equal, compare the third digits from the left.
- **Step 4** : Continue until you find unequal digits at the corresponding places. Now, the number with greater such digit is the greater of the both.

13

Example 2: Compare the following numbers:

- (a) 7123 and 6988 (b) 4738 and 4299
- (c) 5609 and 5612 (d) 8956 and 8954

Solution :

Corac										
(a)	Th	Η	Т	Ο		(b)	Th	Η	Т	Ο
	7	1	2	3			4	7	3	8
	6	9	8	8			4	2	9	9
	Since	7 > 6				Sam	e 💶		- Since	e 7 > 2
	So, 71	23 is g	greate	r than 6988	•			'38 is g		r than 4299.
	i.e., 71	.23 > 6	6988				i.e., 47			
	Or 698	88 is s	malle	r than 7123	•					r than 4738.
	i.e., 69	988 < 7	7123				i.e., 42			i unuit 1700.
							1.0., 12		1700	
(c)	Th	Η	Т	0		(d)	Th	Η	Т	0
	5	6	0	9			8	9	5	6
	5	6	1	2			8	9	5	4
	San	ne		Since $0 < 1$				Same	I	Since $6 > 4$
	So, 56	09 is s	malle	r than 5612	<u>,</u>		So, 89	56 is g	greate	r than 8954.
	i.e., 56	509 < 5	5612				i.e., 89	956 > 8	3954	
	Or 561	12 is g	reater	than 5609.			Or 895	54 is s	maller	r than 8956.
	i.e., 56	U					i.e., 89	954 < 8	3956	
Q										
DO	141	Pu	t the	correct sig	n >, < o	r = in	the bo	x:		
	- 4	1.	-			2578			57	28 5287
		1.	000	//00	Ζ.	2370	2075	5	9. 9 7.	20 3207

Example 3: There are 5325 men and 5345 women in a village. Were there more men than women?

9617 1694

6.

7270 2675

Samvid Series Mathematics -

5.

Solution: Here, 5325 < 5345, because 2 < 4. Thus, the number of men in the village is not more than the number of women.

Ordering of Numbers

14

4.

8008 8018

Once we compare numbers using the above given rules, the numbers can be ordered from the smallest to the greatest or from the greatest to the smallest.

Ascending Order: Arranging the numbers from the smallest to the greatest is called the ascending order of numbers.

Descending Order: Arranging the numbers from the greatest to the smallest is called the descending order of numbers. **Example 4:** Arrange the following numbers in ascending and descending order:

6354, 635, 3642, 5637, 7906

Solution: Let us arrange the given numbers in the place value chart. Here we have one 3-digit number and four 4-digit numbers.

The 3-digit number 635 is the smallest. Among the 4-digit numbers, 3642 is the smallest. The other numbers greater than 3642 are 5637, 6354 and 7906.

Thus, the given numbers in ascending order are:

635 < 3642 < 5637 < 6354 < 7906

And the given numbers in descending order are:

7906 > 6354 > 5637 > 3642 > 635

Th	Η	Т	0
6	3	5	4
	6	3	5
3	6	4	2
5	6	3	7
7	9	0	6

Test Prep 2.3

1.	Com	pare tl	ne nu	mbers a	and w	rite the	corre	ct s	ymbo	ol >, <	or =:			
	(a)	203		2302	(b)	1603	1	360		(c)	2999		4001	
	(d)	4032		4032	(e)	7943		794	3	(f)	5411		4812	
2.	Find	the sn	nalles	t numb	ers:									
	(a)	7570,	7057,	5770, 7	075		(b)		1030,	1300,	1003,	3001		
	(c)	2563,	3625,	3526, 32	265		(d))	5257,	8257,	3577,	9275		
3.	Find	the la	rgest 1	numbe	r:									
•	(a)	3546,	5364,	4653,6	345		(b)		1699,	9619,	6991,	9691		
	(c)	2651,	2561,	6215, 6	521		(d))	5420,	5599,	6401,	5329		
4.	Arra	nge th	e follo	owing	numbe	ers in d	lescen	din	g ord	er:				
•	(a)	1625,	5261,	2651, 1	516									
	(b)	3062,	3602,	206, 402	2									
	(c)	4256,	463, 5	96, 305	2									
	(d)	7483,	7638,	8783, 6	738									
5.	Arra	nge th	e follo	owing	numbe	ers in a	scend	ing	orde	r:				
	(a)	199, 1	990, 1	.090, 10	09									
	(b)	1375,	3457,	574, 15	73									
	(c)	4032,	4320,	432, 32	4									
	(d)	6480,	6980,	7990, 7	980									
▲ ≪												$\pm\pm$		
2+2											(4-
	Samvid So Mathemati			+++	++								15	00
		-+-+-							++-	++-	$\left - \right - \left - \right $	++	+++	+
% 2+2	(d) Arran (a) (b) (c) (d) Samvid So	7483, nge th 199, 1 1375, 4032, 6480,	7638, e follo 990, 1 3457, 4320,	8783, 6 wing 1 090, 10 574, 15 432, 32	738 numbe 09 73 4	ers in a	scend	ing	; orde:					5

- 6. The salary of Mr. Singh is ₹ 7985 and the salary of Mr. Sharma is ₹ 9025. Who gets more salary?
- 7. Manav and Rohan are saving money in their piggy banks. There are ₹ 2680 in Manav's piggy bank and ₹ 3095 in Rohan's piggy bank. Who has saved more money?



Successor and Predecessor

Successor of a number is the number that comes just after the number. A successor is derived by adding '1' to the given number.

Example: (a) Successor of 9659 is 9659 + 1 = 9660.

(b) Successor of 3875 is 3875 + 1 = 3876.

Number + 1 = Successor

Predecessor of a number is the number that comes just before that number. A predecessor is derived by subtracting '1' from the given number.

- Example : (a) Predecessor of 9659 is 9659 1 = 9658
 - (b) Predecessor of 8332 is 8332 1 = 8331

Number – 1 = Predecessor

Formation of Numbers with the Given Digits

Let us learn how to form numbers with the given digits.

Formation of Largest Number

To form the largest number from the given digits, we just need to arrange the digits in descending order.

Example 1: Form the largest number from the digit 8, 3, 7 and 2.

Solution: Arrange the digits in place value chart. The largest 4-digit number = 8732

Formation of Smallest Number

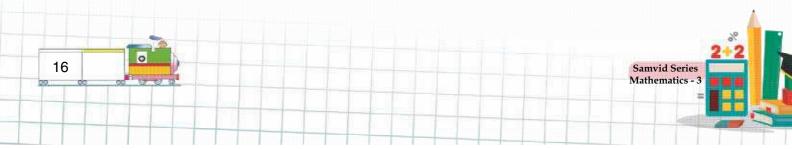
To form the smallest number from the given digits, we just need to arrange the digit in ascending order.

Example 2: Form the smallest number from the digits 4, 9, 7 and 6.

TH	Η	Т	0
4	6	7	9

Solution: Arrange the digits in place value chart.

The smallest 4-digit number = 4679



TH	Η	Т	0
8	7	3	2

When one of the given digits is zero, we put 0 at the second place from the left. We then fill the remaining places from left to right by the remaining digits in an ascending order.

Example 3: Form the smallest 4-digit number using the digits 8, 0, 3 and 6.

TH	Η	Т	0
3	0	6	8

Solution: Arranging the digits in place value chart.

The smallest 4-digit number = 3068

If repetition is allowed

If any one out of the given digits is allowed to repeat, then to form the greatest number, we repeat the greatest digit.

And to form the smallest smaller, we repeat the smallest number.

Example 4: Form the greatest and the smallest 4-digit number using the digit 5, 2 and 6. **Solution:** Here greatest digit is 6. So, the greatest 4-digit number = 6652 Here, smallest digit is 2. So, the smallest 4-digit number = 2256

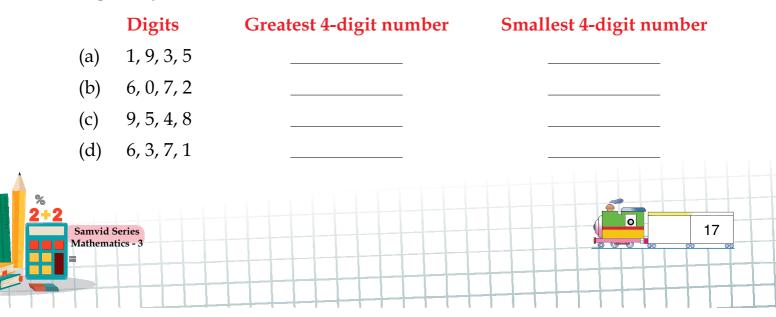
Test Prep 2.4

1.

Write the predecessor and the successor of the following numbers:

	Predecessor	Number	Successor	Number
(a)		2963	(e)	3281
(b)		5482	(f)	4563
(c)		6071	(g)	6785
(d)		2290	(h)	9888

2. Make the greatest and the smallest 4-digit numbers, using each of the given digit only once:



3.	Forn	n the great	est and the smallest 4-digit num	bers, using any digit twice:
		Digits	Greatest 4-digit number	Smallest 4-digit numbers
	(a)	8, 3, 5		
	(b)	7, 0, 2		
	(c)	0, 8, 4		
	(d)	9, 6, 7		
Pie	ck U1	In care	e of 0, use it twice to form smalles	st 4-digit number.

Even and Odd Numbers

All numbers that can be put into pairs are even numbers.



Here are 6 apples which have been kept in pairs. So, 6 is an even number. The numbers 2, 4, 6 and 8 make perfect pairs, hence are called even number.

All the numbers that have 0, 2, 4, 6 or 8 in the ones place are even numbers.

The numbers that cannot be put into pairs are called odd numbers.









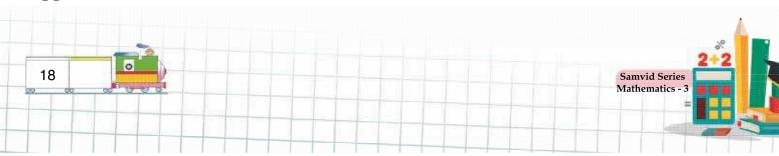
Here are 7 apples out of them 6 have been kept in pairs, and 1 apple is left. It means 7 cannot be put into pairs. So, 7 is an odd number.

The numbers 1, 3, 5, 7 and 9 do not make perfect pairs and so are called odd numbers.

All the numbers that have 1, 3, 5, 7 and 9 in the ones place are odd numbers.

Rounding Off Numbers to the Nearest Tens

Rounding off is used to make a number easier to work with. This helps us give an approximate value.



For example: Prachi's mother gave a bag of marbles to Prachi and asked her how many marbles did she think there are in the bag. Prachi looked into the bag and said, "I think there are about 40 marbles".

When she counts them, there were 43 marbles. Her mother said, "That's excellent, Prachi, you know how to round off."

The basic rule for rounding off numbers to the nearest tens is to observe the digit at the ones place.

> Samvid Series Inthematics - 3

• If the digit at the ones place is 5 or more, we round off to the upper number.

• If the digit at the ones place is less than 5, we round off to the lower number.

Example: Round off the following numbers to the nearest tens: 13 (a) (b) 74 181 (c) (d) 3685 1492 (e) (f) 69 (g) 4888 (h) 3047 Solution: $13 \rightarrow 10$ $74 \rightarrow 70$ $181 \rightarrow 180$ (a) (C) (d) $3685 \rightarrow 3690$ (b) $1492 \rightarrow 1490$ $69 \rightarrow 70$ (g) $4888 \rightarrow 4890$ $3047 \rightarrow 3050$ (e) (f) (h) Test Prep 2.5 1. Write even or odd: (a) 24 457 2785 _____ (b) (C) (d) 39 (e) 420 153 (f) 4562 266 (g)381 (h) (i) 2. Write any ten even numbers between 1000 and 1500. 3. Write any ten odd numbers between 2050 and 3000. Round off the following numbers to the nearest tens: **4**. 87 91 (b)(C) 72 (a) 196 283 145 (e) (f) (d) 2758 (g)4039 5314 (h) (i) 19

Skip Counting

In skip counting, we write the numbers with a fixed gap between two successive

numbers. **Skip Counting in 10s** Just keep the ones column same but watch out for the tens and hundreds column. 1310. 1320 **Example:** 1290, 1300, Skip Counting in 100s Just keep the ones and tens same but watch out for the hundreds and thousands column. 4420, 4520, 4620 **Example:** 4320, **Skip Counting in 1000s** Keep all the columns same as only the thousands column will change. 2982, 3982, 4982, 5982 **Example: Example 1:** Counting by threes, write five numbers from 6082 onwards. Solution: Starting from 6082, we go on adding 3. .: The required numbers are: 6082, 6085, 6088, 6091, 6094 **Example 2:** Counting by fives, write five numbers from 2679 onwards. Solution: Starting from 2679, we go on adding 5. ∴ The required number are: 2679, 2684, 2689, 2694, 2699 **Example 3:** Counting by twenties, write five numbers from 6241 onwards. Solution: Starting from 6241, we go on adding 20. ∴ The required numbers are: 6241, 6261, 6281, 6301, 6321 Test Prep 2.6 1. Complete the following skip counting in 10s: 2590, _____, ____, 2630, _____ (a) 3800, _____, 3820, _____, 3850 (b)Complete the following skip counting in 100s: 2. 2735, _____, 2935, _____, 3135, _____ (a) (b)1234, 1334, _____, ____, ____, ____, ____, ____, ____, Complete the following skip counting in 1000s: 3. 3205, _____, ____, 6205, _____, ____ (a) (b) 4321, _____, 8321, _____ 1299, _____, ____, ____, 6299 (C)

2673, 3673, _____, ____, ____, ____, ____, (d)

Counting by twos, write the numbers from: **4**.

0

20

3294 to 3304 8587 to 8601 (a) (b)



5. Counting by tens, write the numbers from: 9880 to 9940 (b) 6887 to 6937 (a) 6. Counting by hundreds, write the numbers from:

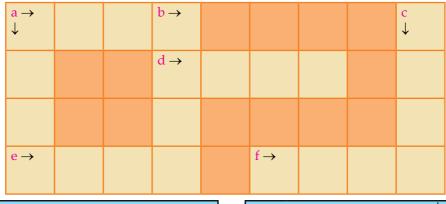
3790 to 4490 (a) (b) 4999 to 5499

7. Counting by thousands, write:

- Five numbers from 3578 onwards (a)
- Six numbers from 4609 onwards (b)



Solve the cross number puzzle.



Across \rightarrow

- Predecessor of 4767 (a)
- Successor of 5431 (d)
- Which is smaller: 4291 or 4923? (e)
- Successor of 9025 (f)

Maths S	killa

Down↓	
Successor of 4523	

- (a) (b) Predecessor of 6592
- (c) Which is greater: 3526 or 3254?

1.	Writ	e the place	value of the cire	cled digit:				
	(a)	-	(b) 954			76	45	-
2.	Write (a)		er name for the (b) 5316			ers: (d)	8739	
3.	Writ	e the follow	ing numbers in	n figures:		()		
	· · ·	Six thousan Two thousa	d two hundred nd four	~ /			and ninety- Ind two hur	
4.	Writ	e the follow	ing numbers in	n expande	d form:			
	(a)	2472	(b)	3362			(c) 7052	
2+2	Samvid S Mathemat							21

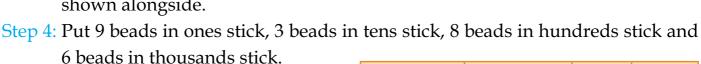
5.	Write the following in standard or short form: (a) 1000 + 80 (b) 9000 + 800 + 6 (c) 7000 + 600 + 40 + 2
6.	Fill in the boxes with appropriate sign >, < or =:
7.	Arrange the following numbers in ascending order:(a)2197, 2984, 2913, 2864(b)5497, 4318, 6412, 7999
8.	Arrange the following numbers in descending order:(a) 2766, 301, 6890, 525(b) 5678, 3435, 6789, 5457
9.	Write the predecessors of the following numbers: (a) 4692 (b) 9634 (c) 5505 (d) 8927
10.	Write the successors of the following numbers: (a) 3894 (b) 4654 (c) 6999 (d) 7899
11.	Write the greatest and smallest four digit number formed by the digits 9, 0, 1, 7.
12.	What number do we get by adding 1 to 999? Is this number the successor of 999? Is it the smallest number of four digits?
13.	Write whether these numbers are even or odd: (a) 4352 (b) 5361 (c) 6239 (d) 7236 Hots
1.	A town has 3195 males and 3980 females. Who are less in number, males or females?
2.	Find the number. Its ones digit is 3 and the tens digit is 3 more than ones digit. Its hundreds digit is 3 less than ones digit and the thousands digit is 3 more than the tens digit.
2	Maths Olympiad
	(1) the correct answer
	 (✓) the correct answer. 6000 + 80 + 2 = ? (a) 682 (b) 6082 (c) 6802 (d) 6820 (d)

2.	The	place	value	of 1 ir	n 6319	is:						
	(a)	0		(b)	1		(c)	10		(d)	100	
3.	Sum	of the	e odd 1	numb	ers be	etween	5 and	d 12 is	:			
	(a)	7		(b)	16		(c)	17		(d)	27	
4.	Whi	ch of	the fo	llowi	ng nu	mbers	has	a digi	t great	ter th	an 1 in the hundre	ds
	plac	es?										
	(a)	3072		(b)	1798	;	(c)	9165)	(d)	5005	
5.	In w	hich o	f the	follow	ving n	umbei	s, the	e place	value	of the	e coloured digit is n	ot
	equa	al to its	s face	value	?							
	(a)	45 <mark>0</mark> 7		(b)	8153	5	(c)	9 <mark>4</mark> 62		(d)	697 <mark>5</mark>	
6.	Pihu	ı made	e the g	reater	: 4-dig	;it nun	nber u	using t	he dig	it 5, 9	, 8 and 7. Her numb	ver
	has t	the big	gest d	ligit a	t hun	dreds	place.	Whic	h of th	e follo	owing is her numbe	er?
	(a)	5987	_	(b)	9875	5	(c)	8975		(d)	8957	
					M	aths	Lab	Activ	ity			

Objective: To represent a 4 digit number on an abacus experimentally

Material required: A small and thick wooden playboard or a thick cardboard or thermocol sheet having four holes in it, four small sticks of equal length, 36 beads of different colours, sketch pens

- Method: Step 1: Put the wooden plyboard on the table. Step 2: Fix each of the four sticks in the four holes of the plyboard.
- Step 3: Using sketch pen, name the sticks as ones (O), tens (T), hundreds (H) and thousand (Th) from right to left as shown alongside.



Thus, the number shown on the abacus is read as six thousand eight hundred thirty-nine (6839).

Thousand	Hundreds	Tens	Ones	
6	8	3	9	

Th

Η

Т

O

