

DELHI PUBLIC SCHOOL, GANDHINAGAR

CLASS :4

SUBJECT: MATHS

Academic Session 2020-21

CHAPTER- 1

LARGE NUMBERS

Concept Section

5-DIGIT NUMBERS

Greatest 4- digit number = 9999

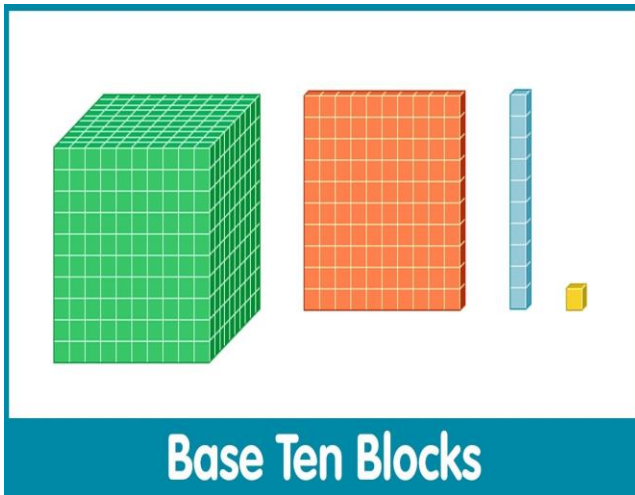
Add 1 + 1

Smallest 5 digit number 10000

10,000 is the smallest 5-digit number.

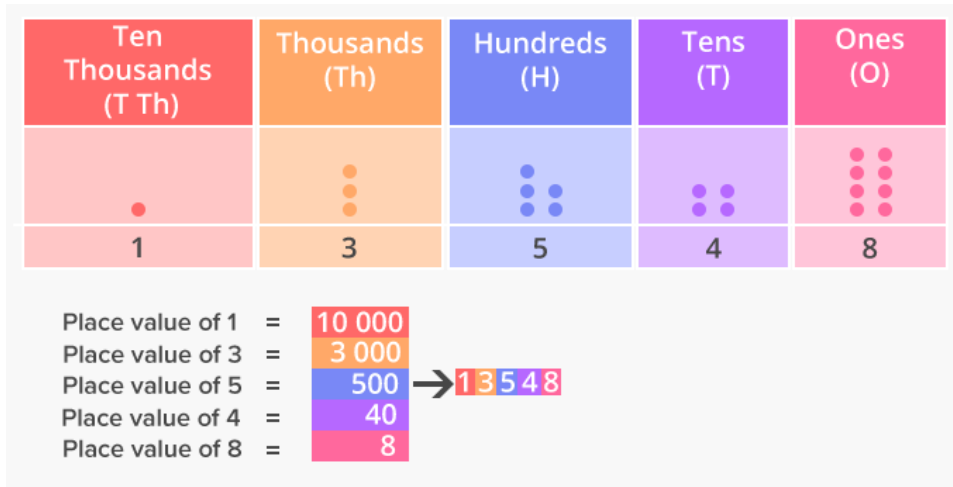
(It is read as Ten thousand)

9999 is the greatest 4-digit number.



10 ones = 1 tens
10 tens = 1 hundreds
10 hundreds = 1 thousands
100 hundreds = 10 thousands

Place value chart

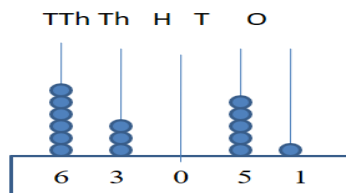


Concept of face value and place value.

Face value	Place value
<p>The face value of a digit is the number itself. It remains the same in all places.</p> <p>Example-</p> <p>4523 = 5</p> <p>2130 = 2</p> <p>1056 = 0</p>	<p>The place value depends on the place of the digit in the number.</p> <p>4523 = 500</p> <p>2130 = 2000</p> <p>1056 = 0</p>

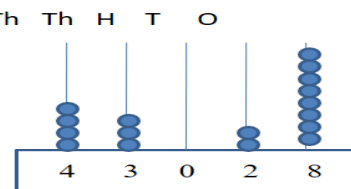
Exercise-1 (notebook work)

Q-1 Write the number on each)



b)

Q-2 Show the number on the abacus



Q.3 Write the number for the number name

- a. Thirty-three thousand three hundred three=**33,303**
- b. Eleven thousand ninety one=**11,091**

Q-4. Read the number and write the number name

- a. 84,290=Eighty-four thousand two hundred ninety.
- b. 29,354=Twenty-nine thousand three hundred fifty four.

Q-5 Write the Following

- a. Smallest five digit number =10000
- b. 3 thousand more than 10,010=13,010
- c. 6 thousand less than 43,102= 37,102

6-DIGIT NUMBERS

GREATEST 5- digit number = 99999

Add $\begin{array}{r} + \\ \hline 1 \end{array}$

Smallest 5 digit number 100000

1,00,000 is the smallest 6 -digit number.

It is read as one lakh.

99,999 is the greatest 5- digit number.

PLACE VALUE CHART OF 6 DIGIT NUMBERS

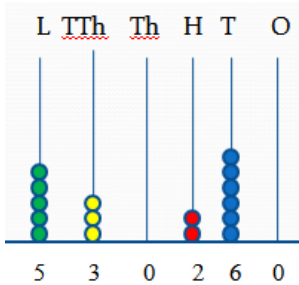
Lakhs period	Thousand Period		Ones Period		
Lakhs	Ten thousands	Thousands	Hundreds	Tens	Ones
1	0	0	0	0	0
3	8	2	9	6	5

Number name = Three lakh eighty two thousand nine hundred sixty five

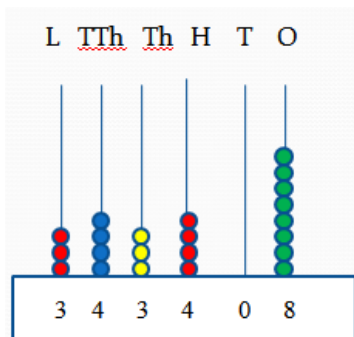
Expanded form = 3,00,000 + 80,000 + 2,000 + 900 + 60 + 5

Exercise- 2

Q-1. Write the number on each abacus.



Q-2. Show the number on the abacus



Q-3. Write the number for the number name. Put the comma at the right place.

- Six lakh forty five thousand three hundred twenty=6,45,320
- Four lakh eleven=4,00,011

Q-4. Read the number and write the number name.

- 5,80,210 = Five lakh eighty thousand two hundred ten.
- 4,41,063= Four lakh forty one thousand sixty-three.

Q-5 Write the numbers.

- 3 lakh more than 4,10,010 = 7,10,010
- 6 ten thousand less than 5,63,102 = 5,03,102

Exercise-3

Q-1. Fill in the correct symbol < or >.

- 64,332 \leq 86,331
- 1,95,422 \geq 95,099

Q-2. Ring the greatest number in each.

- 20, 182 ; 9,876 ; **1,20,001**

b. 4,67,143 ; 4,68,122 ; 4,68,222

Q-3. Ring the smallest number in each.

a. 4355 ; 44,355 ; 4495

b. 67,789 ; 67,879 ; 67,979

Q.4 Arrange in ascending order:

a) 47,520 9760 52,497 1,00,000

Ans: 9760 47,520 52,497 1,00,000

Q-5- Arrange in descending order:

a) 50,329 59,530 59,329 5,59,530

Ans: 5,59,530 59,530 59,329 50,329

EXERCISE-4

Q.1 Build the greatest and smallest numbers with these digits, without repeating the digit.

Sr. No.	Digits	NO OF DIGITS	GREATEST NUMBER	SMALLEST NUMBER
1.	5,3,2,1,4	5	54,321	12,345
2.	0,2,7,5,6,9	6	9,76,520	2,05,679

Q-2. Build the greatest and smallest number, by repeating digits as required.

Sr. No	Digits	Greatest 5-digit number	Smallest 5-digit number	Greatest 6-digit number	Smallest 6-digit number
1.	2,8,4	88,842	22,248	8,88,842	2,22,248
2.	7,0,6,3	77,630	30,067	7,77,630	3,00,067

ROUNDING NUMBERS

Exercise-5

Q-1 Round to the nearest 10

a) 67

Ans: $7 > 5$, so 67 is rounded up to 70

b) 2456

Ans: $6 > 5$, so 2456 is rounded up to 2460

c) 23,450

Ans: $0 < 5$, so 23,450 is rounded to 23,450

Q-2 Round to the nearest 100

a) 754

Ans: $5 = 5$, so 754 is rounded up to 800

b) 9772

Ans: $7 > 5$, so 9772 is rounded up to 9800

c) 99

Ans: $9 > 5$, so it is rounded up to 100

Q-3 Round to the nearest 1000.

a) 67,101

Ans: $1 < 5$, so 67,101 is rounded down to 67,000

b) 499

Ans: $4 < 5$, so 499 is rounded down to 0

c) 2,69,859

Ans: $8 > 5$, so 2,69,859 is rounded up to 2,70,000

ROMAN NUMERALS

- There are 7 basic symbols in Roman Numerals.
- There is no symbol of 0 in the Roman Numerals.

ROMAN NUMERALS	HINDU ARABIC
I	1
V	5
X	10
L	50
C	100
D	500
M	1000

Exercise- 6

Q-1 Write the Roman Numerals:

a) 36

Ans : $10+10+10+5+1 = XXXVI$

b) 27

Ans: $10+10+5+1+1 = XXVII$

Q-2 Write the Hindu –Arabic numerals:

a) $XXVIII = 10+10++5+3=28$

b) $XXX = 10+10+10= 30$

Q-3. Use the Roman system rules to complete the table.

Hindu Arabic	Roman Numbers	Hindu Arabic	Roman Numbers	Hindu Arabic	Roman Numbers	Hindu Arabic	Roman Numbers
1	I	11	XI	21	XXI	31	XXXI
2	II	12	XII	22	XXII	32	XXXII
3	III	13	XIII	23	XXIII	33	XXXIII
4	IV	14	XIV	24	XXIV	34	XXXIV
5	V	15	XV	25	XXV	35	XXXV
6	VI	16	XVI	26	XXVI	36	XXXVI
7	VII	17	XVII	27	XXVII	37	XXXVII
8	VIII	18	XVIII	28	XXVIII	38	XXXVIII
9	XIX	19	XIX	29	XXIX	39	XXXIX
10	X	20	XX	30	XXX	40	XL

Mental Maths

1. In which of these digits, does the digit 7 have a place value of 70,000?

754896 474566 47566 78932

Ans: 474566 and 78932

2. What is the sum of the place values of the digit 5 in 5,07,895?

Ans: 5,00,005

3. What is 5,299 rounded off to the nearest 100?

Ans: 5,300

4. What is 1 less than 4,00,000?

Ans: 3,99,999

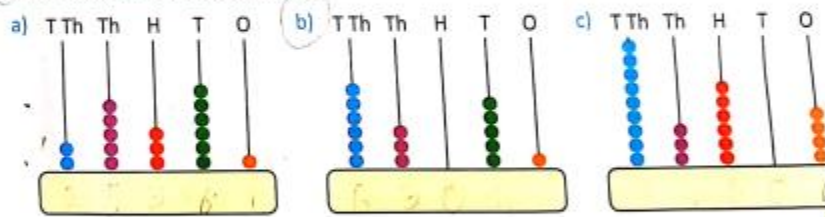
5. Find the difference between the successor of 9999 and the predecessor of

10000. Ans: 1

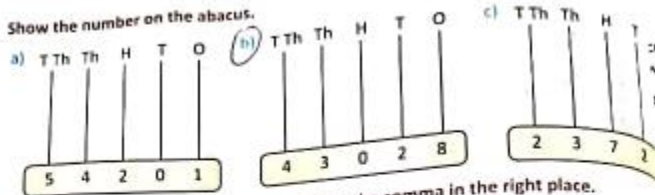
SCANNED PAGES OF MATHS TEXTBOOK FOR REFERENCE

EXERCISE 1

1. Write the number on each abacus.



2. Show the number on the abacus.



3. Write the number for the number name. Put the comma in the right place.

- a) Ninety-one thousand four hundred seventy-five _____
- b) Thirty-three thousand three hundred three _____
- c) Eleven thousand ninety-one _____

4. Read the number and write the number name.

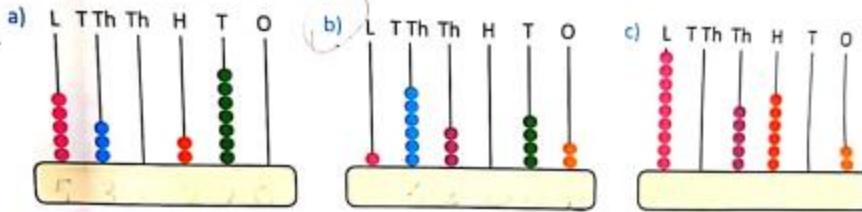
- a) 84,290 : _____
- b) 29,354 : _____
- c) 60,032 : _____

5. Write down the following.

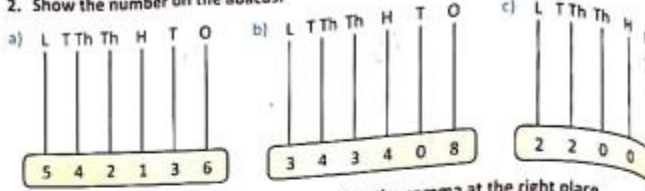
- a) Greatest 5-digit number : _____
- b) Smallest 5-digit number : _____
- c) 3 thousand more than 10,010 : _____
- d) 6 thousand less than 43,102 : _____
- e) Ten thousand more than 12,345 : _____
- f) The expanded form of 38,709 : _____

EXERCISE 2

1. Write the number on each abacus.



2. Show the number on the abacus.



3. Write the number for the number name. Put the comma at the right place.

- a) Six lakh forty-five thousand three hundred twenty : _____
- b) Two lakh ninety thousand one hundred one : _____
- c) Four lakh eleven : _____

4. Read the number and write the number name.

- a) 6,28,732 : _____
- b) 5,80,210 : _____
- c) 4,41,063 : _____

5. Write the numbers.

- a) Greatest 6-digit number : _____
- b) Smallest 6-digit number : _____
- c) 3 lakhs more than 4,10,010 : _____
- d) 6 ten thousand less than 5,63,102 : _____
- e) Ten thousand more than 7,12,345 : _____
- f) Expanded form of 9,54,073 : _____

EXERCISE 3

- Fill in the correct symbol < or >.
 - 84,026 32,001
 - 64,332 86,331
 - 1,95,422 95,000
 - 3,56,780 3,56,790
 - 2,48,291 2,48,270
 - 5,87,609 5,73,321
- Ring the greatest number in each.
 - 23,596 33,496 22,996
 - 20,182 9876 1,20,001
 - 53,138 53,238 53,088
 - 4,67,143 4,68,122 4,68,222
- Ring the smallest number in each.
 - 4355 44,355 4495
 - 1,16,433 21,643 12,346
 - 67,789 67,879 67,979
 - 5,60,000 5,61,000 99,999
- Arrange in ascending order.
 - 53,217 53,211 55,600 45,301 _____
 - 47,520 9760 52,497 1,00,000 _____
 - 1,21,050 1,12,500 5,10,211 1,02,570 _____
- Arrange in descending order.
 - 26,566 26,600 27,560 3,27,400 _____
 - 50,329 59,530 59,329 5,59,530 _____
 - 3,41,956 9,56,432 3,14,566 9,65,432 _____

♦ Building greatest and smallest numbers

Without repeating digits

You are given these number cards: **4 6 3 0 8**

You can build many 5-digit numbers by arranging them in different ways. Some examples are:

4 6 3 0 8 3 8 0 4 6 8 6 4 3 0 3 4 6 8

EXERCISE 4

- Build the greatest and smallest numbers with these digits, without repeating the digits.

Digits	Number of digits	Greatest number	Smallest number
a) 4, 3, 1, 7	4		
b) 5, 3, 2, 1, 4	5		
c) 3, 0, 6, 1, 8, 7	6		
d) 0, 2, 7, 5, 6, 9	6		

- Build the greatest and smallest numbers with these digits, by repeating digits as required.

Digits	Greatest 5-digit number	Smallest 5-digit number	Greatest 6-digit number	Smallest 6-digit number
a) 3, 1, 7				
b) 2, 8, 4				
c) 7, 0, 6, 3				
d) 0, 2, 7, 5				

EXERCISE 5

1. Round to the nearest 10.

- | | | | |
|--------|--------|---------|-----------|
| a) 32 | b) 67 | c) 452 | d) 85 |
| e) 114 | f) 966 | g) 2456 | h) 23,450 |

2. Round to the nearest 100.

- | | | | |
|--------|-----------|-----------|-------|
| a) 754 | b) 8638 | c) 9772 | d) 49 |
| e) 150 | f) 45,813 | g) 27,390 | h) 99 |

3. Round to the nearest 1000.

- | | | | |
|---------|-------------|-------------|-----------|
| a) 4892 | b) 67,101 | c) 499 | d) 93,228 |
| e) 5499 | f) 2,69,859 | g) 5,77,645 | h) 999 |

4. You want to take sweets for your class on your birthday. There are 46 children in your class. How many sweets will you take, rounded to the nearest 10?
5. Latha's class has 42 children. She rounds to the nearest 10 and takes 40 sweets to class on her birthday. Did she do the right thing? Why? What should she have done?
6. A newspaper reporter was told that 23,347 people watched a cricket match between India and Sri Lanka. In the newspaper, he gave the headline as: **23,000 watch cricket match**. How did he round off the number?



EXERCISE 6

1. Write the Roman numerals:

- a) 19 _____ b) 36 _____ c) 25 _____ d) 27 _____

2. Write the Hindu-Arabic numerals:

- a) XXVIII _____ b) XXIV _____ c) XXX _____ d) XVII _____

3. Use the Roman system rules to complete the table.

1	I		21	XXI	$10 + 10 + 1$
2	II	$1 + 1$	22		
3	III		23		
4	IV	$5 - 1$	24		$10 + 10 + (5 - 1)$
5	V		25	XXV	
6		$5 + 1$	26		
7			27		
8			28		
9	XIX		29	XXIX	
10	X		30	XXX	
11	XI		31		
12		$10 + 2$	32		
13			33		$10 + 10 + 10 + 3$
14	XIV		34		
15		$10 + 5$	35	XXXV	
16	XVI		36		
17			37		
18			38		
19	XXX		39		$10 + 10 + 10 + (10 - 1)$
20		$10 + 10$			

SKILLS SECTION (calculation, application and analysing skills)

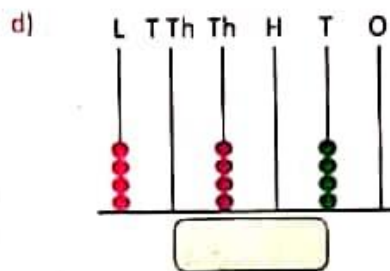
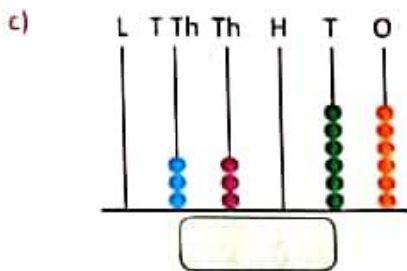
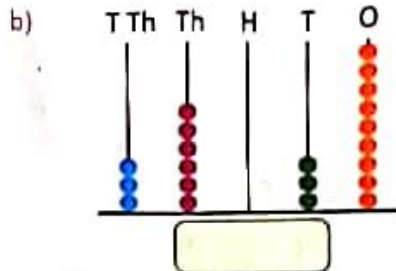
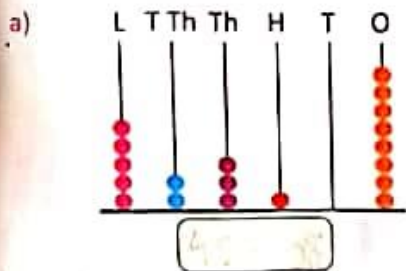
Mental Maths

1. Which of these is a 5-digit number? 123476 6590 45678 334566
2. In which of these, does the digit 7 have a place value of 70000?
754896 474566 47566 78932
3. Which digit is in the lakhs place in 398105?
4. What is the sum of the place values of the digit 5 in 507895?
5. What is 5299 rounded off to the nearest 100?
6. What is 299 rounded off to the nearest 1000?
7. What is the Roman numeral for 29?
8. What is the Hindu–Arabic numeral for XXXVII?
9. What is 1 less than 4,00,000?
10. Give a number that is greater than 358701.

Mixed Bag

1. Choose the correct answer.
 - a) The difference between the place value and face value of the digit 1 in 1,23,456 is
i. 1,00,000 ii. 1,00,001 iii. 99,999 iv. 9999
 - b) In which number, is the digit 5 in the ten thousands place?
i. 5,36,498 ii. 3,54,436 iii. 2,45,467 iv. 1,23,456
 - c) 34,678 is bigger than which of the following?
i. 1,23,678 ii. 44,678 iii. 35,678 iv. 34,578
 - d) 189 rounded to the nearest 1000 is:
i. 0 ii. 1000 iii. 100 iv. 200
 - e) Which of these is a valid Roman number?
i. VVV ii. IIII iii. XXX iv. XVV

Write the number and number name for each abacus.



3. Write the number for the number name.

- a) Five lakh fifteen thousand ten : _____
- b) Ten thousand one hundred eleven : _____
- c) Nine lakh ninety-two thousand nine hundred nine : _____
- d) One lakh one : _____
- e) Fifty-six thousand fifty : _____

4. Read the number and write the number name.

- a) 1,29,323 : _____
- b) 5,08,017 : _____
- c) 80,539 : _____
- d) 44,044 : _____
- e) 9,99,009 : _____

5. Write in the expanded form.

- a) 56,495 : _____

- b) 1,90,020 : _____
 c) 6,54,308 : _____
 d) 71,808 : _____
 e) 8,89,520 : _____

6. Write in the standard form.

- a) $6,00,000 + 50,000 + 9000 + 100 + 30 + 4 =$ _____
 b) $50,000 + 900 + 40 + 7 =$ _____
 c) $70,000 + 5000 + 80 + 1 =$ _____
 d) $5,00,000 + 70,000 + 400 + 30 + 8 =$ _____
 e) $1,00,000 + 20,000 + 6000 + 700 + 7 =$ _____

7. Write the place value of the digit in colour.

- a) 38,947 b) 4,24,590 c) 26,353 d) 1,44,643 e) 59,680
 f) 5,73,829 g) 5697 h) 11,686 i) 9,49,999 j) 6,88,000

8. Arrange in ascending order.

- a) 5971 9571 7951 1795 b) 60,649 66,047 66,407 66,470
 c) 5,89,123 58,912 59,812 5,89,130 d) 77,305 7,35,673 7,35,099 8,35,999

9. Arrange in descending order.

- a) 16,362 6,362 1,16,362 17,362 b) 49,506 48,617 48,716 1,49,056
 c) 3,53,636 4,00,000 3,99,999 4,00,101 d) 9,82,141 99,898 5,36,458 1,01,001

10. Build the greatest and smallest numbers. Repeat digits where necessary.

- a) 3, 7, 1, 2, 5 : Greatest 5-digit number = _____
 Smallest 5-digit number = _____
 b) 5, 3, 4, 0 : Greatest 5-digit number = _____
 Smallest 4-digit number = _____
 c) 1, 2, 4, 0, 7 : Greatest 6-digit number = _____
 Smallest 5-digit number = _____
 d) 3, 8, 2 : Greatest 5-digit number = _____
 Smallest 5-digit number = _____
 e) 5, 0, 9 : Greatest 6-digit number = _____
 Smallest 6-digit number = _____

DELHI PUBLIC SCHOOL, GANDHINAGAR

CLASS : 4

SUBJECT: MATHS

Academic Session 2020-21

CHAPTER 2

ADDITION AND SUBTRACTION

Addition is ...

... bringing two or more numbers (or things) together to make a new total.

The numbers to be added together are called the "**Addends**":

The answer of addition is called sum.

$$\begin{array}{r} \text{TH H T O} \\ 2341 \updownarrow \text{ addends} \\ + 1245 \\ \hline 3586 \rightarrow \text{Sum} \end{array}$$

Words used for

Addition- Add, Sum, Plus, Increase, Total

Subtraction- Subtract, Minus, Less, Difference, Decrease, Take away, Deduct

EXERCISE 1

Q.1 Add

$$\begin{array}{r} 111 \\ \text{(a) } 4683 \\ + 6397 \\ \hline 11080 \end{array}$$

$$\begin{array}{r} 111 \\ \text{(c) } 7777 \\ + 3333 \\ \hline 11110 \end{array}$$

Q.2 Add

$$\begin{array}{r} \text{(a) } 3868+6967 \\ 111 \\ 3868 \\ + 6967 \\ \hline 10835 \end{array}$$

$$\begin{array}{r} \text{(c) } 4038+9999 \\ 111 \\ 4038 \\ + 9999 \\ \hline 14037 \end{array}$$

Q.3 Magan's parents bought a refrigerator for ₹ 6578 and a television for ₹ 4309. How much money did they spend?

Solution:

$$\begin{array}{r}
 1 \\
 \text{Cost of refrigerator} = \text{₹ } 6578 \\
 \text{Cost of television} = + \text{₹ } 4309 \\
 \hline
 \text{Total cost} = \text{₹ } 10887
 \end{array}$$

Ans: Total money spend by Magan's parents is ₹ 10,887.

EXERCISE - 2

Q.1 Add

$$\begin{array}{r}
 1 11 \\
 \text{a) } 64024 \\
 + 26896 \\
 \hline
 90920
 \end{array}$$

$$\begin{array}{r}
 1212 \\
 \text{d) } 23659 \\
 + 31643 \\
 \hline
 07859 \\
 \hline
 63161
 \end{array}$$

Q.2 Add

a) $41,362 + 38,653$

$$\begin{array}{r}
 111 \\
 41362 \\
 + 38653 \\
 \hline
 80015
 \end{array}$$

b) $32,053 + 8607 + 51,640$

$$\begin{array}{r}
 1111 \\
 32053 \\
 + 8607 \\
 \hline
 51640 \\
 \hline
 92300
 \end{array}$$

Q.3 Every month Parul's mother deposits some money in the bank. She deposited ₹ 12,980 in January and ₹ 15,880 in February. How much money did she deposit in the two months?

Solution:

$$\begin{array}{r}
 11 \\
 \text{Money deposited money in January} = \text{₹ } 12,980 \\
 \text{Money deposited money in February} = + \text{₹ } 15,880 \\
 \hline
 \text{Total money deposited in 2 months} = \text{₹ } 28,860
 \end{array}$$

Ans: Parul's mother deposited ₹ 28,860 in 2 months.

Q.4 In a village , there are 45,356 men. The number of women is 2879 more than the number of men. How many women are there in the village?

Solution:

Number of men = 45,356

$$\begin{array}{r} 111 \\ \text{Number of women is 2879 more than the number of men} = 45356 \\ + 02879 \\ \hline 48235 \end{array}$$

Ans : There are 48,235 women in the village.

Step 4: Add the thousands and regroup.

$$1 + 6 + 7 = 14$$

14 thousands = 1 ten thousand + 4 thousands

Answer : 14,219



EXERCISE 1

1. Add

$$\begin{array}{r} a) \quad 4 \ 6 \ 8 \ 3 \\ + 6 \ 3 \ 9 \ 7 \\ \hline \end{array}$$

$$\begin{array}{r} b) \quad 5 \ 0 \ 7 \ 6 \\ + 4 \ 9 \ 3 \ 7 \\ \hline \end{array}$$

$$\begin{array}{r} c) \quad 7 \ 7 \ 7 \ 7 \\ + 3 \ 3 \ 3 \ 3 \\ \hline \end{array}$$

$$\begin{array}{r} d) \quad 9 \ 3 \ 6 \ 7 \\ + 2 \ 7 \ 5 \ 5 \\ \hline \end{array}$$

2. Add

$$a) \quad 3868 + 6967$$

$$b) \quad 7081 + 5539$$

$$c) \quad 4038 + 9999$$

$$d) \quad 6789 + 9876$$

3. Magan's parents bought a refrigerator for ₹ 6578 and a television for ₹ 4309. How much money did they spend?

4. A flight left New Delhi and flew 6707 km to London in 8 hours 10 minutes. It then travelled 5576 km from London to New York in 7 hours 20 minutes. What is the distance from New Delhi to New York? (*Hint:* There is some extra information in the sum which you do not require.)

◆ Addition of 5-digit numbers

Addition of 5-digit numbers is done in the same way as addition of 4-digit numbers.

Write the numbers one below the other according to place values.

Add in order: ones → tens → hundreds → thousands → ten thousands.

Regroup where required.

Example 1: Add 23,458 and 18,533.

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Answer : 41,991

Example 2: Add 36,436, 4597 and 18,099.



$$\begin{array}{r}
 1 \quad 1 \quad 2 \quad 2 \\
 3 \quad 6 \quad 4 \quad 3 \quad 6 \\
 \quad 4 \quad 5 \quad 9 \quad 7 \\
 + 1 \quad 8 \quad 0 \quad 9 \quad 9 \\
 \hline
 5 \quad 9 \quad 1 \quad 3 \quad 2
 \end{array}$$

Answer : 59,132

EXERCISE 2

1. Add

a)
$$\begin{array}{r}
 2 \quad 4 \quad 3 \quad 1 \quad 4 \\
 + 3 \quad 7 \quad 8 \quad 8 \quad 6 \\
 \hline
 \end{array}$$

b)
$$\begin{array}{r}
 6 \quad 4 \quad 0 \quad 2 \quad 4 \\
 + 2 \quad 6 \quad 8 \quad 9 \quad 6 \\
 \hline
 \end{array}$$

c)
$$\begin{array}{r}
 5 \quad 4 \quad 3 \quad 9 \quad 0 \\
 + 3 \quad 7 \quad 3 \quad 1 \quad 8 \\
 \hline
 \end{array}$$

d)
$$\begin{array}{r}
 2 \quad 3 \quad 6 \quad 5 \quad 9 \\
 + 3 \quad 1 \quad 6 \quad 4 \quad 3 \\
 \quad 7 \quad 8 \quad 5 \quad 9 \\
 \hline
 \end{array}$$

2. Add

a) $42,357 + 37,429$

b) $44,229 + 2789$

c) $41,362 + 38,653$

d) $32,053 + 8607 + 51,640$

3. Every month Parul's mother deposits some money in the bank. She deposited ₹ 12,980 in January and ₹ 15,880 in February. How much money did she deposit in the two months?

4. In a village, there are 45,356 men. The number of women is 2879 more than the number of men. How many women are there in the village?

5. Daya attended college in Mumbai. His parents calculated that they needed ₹ 26,880 for tuition fee, ₹ 15,450 for hostel fee and ₹ 10,800 for transport and other things, every year.

How much money do Daya's parents need in a year for Daya's college education?

6. In a town, there are 34,560 men, 32,169 women and 9876 children. What is the population of the town?



◆ **Subtraction of 5-digit numbers**

Subtraction of 5-digit numbers is done in the same way as subtraction of 4-digit numbers. Write the numbers one below the other according to place values, with the greater number on top.

Subtract in order: ones → tens → hundreds → thousands → ten thousands. Regroup where required.



DELHI PUBLIC SCHOOL, GANDHINAGAR

CLASS : 4

SUBJECT: MATHS

Academic Session 2020-21

CHAPTER- 2

Addition and Subtraction (CONTINUE)

Subtraction

...is taking one number away from another.

Subtraction:

$8 - 3 = 5$
Minuend Subtrahend Difference

Minuend – Subtrahend = Difference

Minuend: The number that is to be subtracted from.

Subtrahend: The number that is to be subtracted.

Difference: The result of subtracting one number from another.

Exercise-3

Q.1 Subtract. In each case, check the answer by addition.

a)

			6	13	
	5	8	7	3	2
-	2	6	5	8	2
	3	2	1	5	0

Check

			1		
	3	2	1	5	0
+	2	6	5	8	2
	5	8	7	3	2

d)

	5	9	9	9	10
	6	0	0	0	0
-	2	7	5	3	5
	3	2	4	6	5

Check

	1	1	1	1	
	3	2	4	6	5
+	2	7	5	3	5
	6	0	0	0	0

Q.2 (a) Subtract 4990 from 55,434

	TTH	TH	H	T	O
	5	5	4	3	4
-		4	9	9	0
	5	0	4	4	4

d) Find the difference between 35,287 and 47,363

	TTH	TH	H	T	O
	4	7	3	6	3
-	3	5	2	8	7
	1	2	0	7	6

Q.4. 50000 copies of a book have to be printed and bound. In a week 25,540 books were completed. How many are left?

Solution:

Number of books to be printed and bound = 50,000

Number of books to be completed = 25,540

Number of books left to be printed and bound =

	4	9	9	10	
	5	0	0	0	0
-	2	5	5	4	0
	2	4	4	6	0

Ans. 24,460 books left to be printed and bound.

Q.5. The population of Karimganj is 23,678. The population of Azamgarh is 46,567. Which town has a larger population? How much more?

Solution:

Population of Azamgarh = 46,567

Population of Karimganj = 23,678

		5	14	15	17
	4	6	5	6	7
-	2	3	6	7	8
	2	2	8	8	9

Ans. Azamgarh has a larger population and by 22,889.

Combining addition and subtraction

Combining addition and subtraction

Example: $4672 - 2418 + 9345$

Step 1: Add the first number to the number with the + sign before it.

Step 2: From the sum, subtract the number with the - sign before it.

$$\begin{array}{r}
 4672 \\
 + 9345 \\
 \hline
 14017
 \end{array}
 \begin{array}{r}
 14017 \\
 - 2418 \\
 \hline
 11599
 \end{array}$$



Exercise- 4

a) $7763 + 4594 - 306$

Step-1

	7	7	6	3
+	4	5	9	4
	1	2	3	7

Step-2

	1	2	3	5	7
-			3	0	6
	1	2	0	5	1

b) $3365 - 1302 + 2304$

Step-1

	3	3	6	5
+	2	3	0	4
	5	6	6	9

Step-2

	5	6	6	9
-	1	3	0	2
	4	3	6	7

Self-practice

d) $2335+1545-3666$

Step-1

Step-2

f) $5000-1234+3000$

Step-1

Step-2

Q.2 On Saturday evening, 5450 people visited India Gate. Out of these 1265 were men, 1150 were women and the rest were children. How many children visited India Gate?

Men =1265	Women=1150	Children=?
-----------	------------	------------

Solution:

Number of men= 1265

Number of women= 1150

Number of men and women both=

	1	2	6	5
+	1	1	5	0
	2	4	1	5

Total number of people=

Number of men and women=

Number of children

	5	4	5	0
-	2	4	1	5
	3	0	3	5

Ans: 3,035 children visited India Gate.

Mental Maths

Work out the following mentally

a) $1617+19$

$1617+10+9$

$1627+9$

1636

b) $1238+27$

$1238+20+7$

$1258+7$

1265

g) $2639-28$

$2639-30$

$2609+2$

2611

h) $4166-39$

$4166-40$

$4126+1$

4127

Example 3: Check:

$$56,843 - 27,968 = 28,875$$

Check: Difference + smaller number = greater number

$$28,875 + 27,968 = 56,843$$

Therefore, the answer is correct.

Check

$$\begin{array}{r} 1 \quad 1 \quad 1 \quad 1 \\ 2 \quad 8 \quad 8 \quad 7 \quad 5 \\ + 2 \quad 7 \quad 9 \quad 6 \quad 8 \\ \hline 5 \quad 6 \quad 8 \quad 4 \quad 3 \end{array}$$

EXERCISE 3

1. **Subtract.** In each case, check the answer by addition.

a)
$$\begin{array}{r} 5 \quad 8 \quad 7 \quad 3 \quad 2 \\ - 2 \quad 6 \quad 5 \quad 8 \quad 2 \\ \hline \end{array}$$

b)
$$\begin{array}{r} 8 \quad 3 \quad 6 \quad 0 \quad 2 \\ - 5 \quad 7 \quad 9 \quad 8 \quad 9 \\ \hline \end{array}$$

c)
$$\begin{array}{r} 6 \quad 0 \quad 4 \quad 6 \quad 3 \\ - 2 \quad 0 \quad 0 \quad 6 \quad 6 \\ \hline \end{array}$$

d)
$$\begin{array}{r} 6 \quad 0 \quad 0 \quad 0 \quad 0 \\ - 2 \quad 7 \quad 5 \quad 3 \quad 5 \\ \hline \end{array}$$

- a) Subtract 4990 from 55,434.

b) Subtract 12,345 from 50,000.

c) Find the difference between 23,000 and 9999.

d) Find the difference between 35,287 and 47,363.
- In an election, candidate A got 2458 votes fewer than candidate B. If candidate B got 2,85,765 votes, how many votes did candidate A get?
- 50,000 copies of a book have to be printed and bound. In a week, 25,540 books were completed. How many are left?
- The population of Karimganj is 23,678. The population of Azamgarh is 46,567. Which town has a larger population? How much more?
- Mr Khanna had ₹ 20,000 in his bank account. He took out ₹ 10,855 to buy a sofa. How much money is left in his bank account?



◆ Combining addition and subtraction

Example: $4672 - 2418 + 9345$

Step 1: Add the first number to the number with the + sign before it.

Step 2: From the sum, subtract the number with the - sign before it.

$$\begin{array}{r} 4 \quad 6 \quad 7 \quad 2 \\ + 9 \quad 3 \quad 4 \quad 5 \\ \hline 1 \quad 4 \quad 0 \quad 1 \quad 7 \end{array} \quad \begin{array}{r} 1 \quad 4 \quad 0 \quad 1 \quad 7 \\ - 2 \quad 4 \quad 1 \quad 8 \\ \hline 1 \quad 1 \quad 5 \quad 9 \quad 9 \end{array}$$

EXERCISE 4

1. Solve.

a) $7763 + 4594 - 306 = \underline{\hspace{2cm}}$

b) $3365 - 1302 + 2304 = \underline{\hspace{2cm}}$

c) $9896 - 2723 + 6516 = \underline{\hspace{2cm}}$

d) $2335 + 1545 - 3666 = \underline{\hspace{2cm}}$

e) $2405 - 1209 + 3568 = \underline{\hspace{2cm}}$

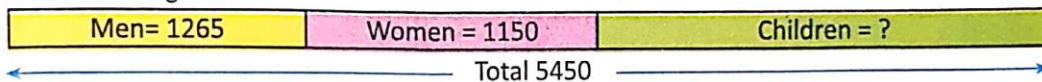
f) $5000 - 1234 + 3000 = \underline{\hspace{2cm}}$

Another way of finding the answer to a sum like $3365 - 1302 + 2304$, is to first do the subtraction ($3365 - 1302$) and then add the answer to 2304. You will get the same answer.



2. On Saturday evening, 5450 people visited India Gate. Out of these 1265 were men, 1150 were women and the rest were children. How many children visited India Gate?

Hint: see the figure:



3. Mr Gopal earns ₹ 24,375 per month. Mrs Gopal earns ₹ 20,785 per month. They spend ₹ 30,500 in a month. How much money do they save every month?



SKILLS SECTION (calculation, application and analysing skills)

Mental Maths

Here are some quick methods of adding and subtracting certain types of numbers, by breaking up one of the numbers.

1. Add 1258 and 18.

Break up 18 as: $18 = 20 - 2$

Therefore, to add 18, first add 20 then subtract 2.

$$1258 + 20 = 1278$$

$$1278 - 2 = 1276$$

2. Add 3452 and 23.

$23 = 20 + 3$

To add 23, first add 20 then add 3.

$$3452 + 20 = 3472$$

$$3472 + 3 = 3475$$

3. Subtract 19 from 1358.

$19 = 20 - 1$

To subtract 19, first subtract 20, then add 1.

$$1358 - 20 = 1338$$

$$1338 + 1 = 1339$$



4. Subtract 32 from 4397.

$$32 = 30 + 2$$

To subtract 32, first subtract 30, then subtract 2.

$$4397 - 30 = 4367$$

$$4367 - 2 = 4365$$

Work out the following mentally.

a) $1617 + 19 =$ _____

b) $2833 + 18 =$ _____

c) $1238 + 27 =$ _____

d) $2418 + 21 =$ _____

e) $3317 + 22 =$ _____

f) $2856 + 33 =$ _____

g) $2639 - 28 =$ _____

h) $4166 - 39 =$ _____

i) $1639 - 17 =$ _____

j) $2897 - 32 =$ _____

k) $6528 - 23 =$ _____

l) $3895 - 43 =$ _____

Mixed Bag

1. Choose the correct answer.

a) If $38,666 - 27,345 = 11,321$, which of the following is true?

i. $38,666 + 11,321 = 27,345$

ii. $38,666 - 11,321 = 27,345$

iii. $27,345 - 11,321 = 38,666$

iv. Both ii and iii

b) If $27,305 + 12,327 = 39,632$, which of the following is true?

i. $39,632 - 12,327 = 27,305$

ii. $39,632 - 27,305 = 12,327$

iii. $12,327 + 27,305 = 39,632$

iv. All of these

c) If a number is added to itself, the answer is:

i. 0

ii. 1

iii. Double the number

iv. Half of the number

d) If a number is subtracted from itself, the answer is:

i. 0

ii. 1

iii. Double the number

iv. Half of the number

2. Add or subtract as required, in your notebook.

a) $56,942 + 19,370$

b) $56,709 + 5798$

c) $56,789 - 26,798$

d) $73,657 - 3709$

e) $9842 + 23,679$

f) $43,509 + 3640 + 12,563$

g) $92,400 - 11,678$

h) $53,000 - 37,987$

i) Add 36,532 to 53,849.

j) Add 4381, 52,324 and 25,426.

k) Subtract 32,824 from 51,600.

l) Subtract 13,876 from 36,232.

m) Add 21,987 to 59,909.

n) Add 47,032 to 19,474 and 5760.

o) Find the difference between 63,569 and 64,679.

p) Find the difference between 40,000 and 9999.

3. Applying addition and subtraction (story sums)

a) Mr Grover bought a car. He paid ₹ 18,670 from his savings. He took a loan of ₹ 55,450 from a bank to pay the rest of the money. What was the cost of the car?



b) Anand bought a television set and a music system for ₹ 86,499. The cost of the television set was ₹ 45,789. What was the cost of the music system?



c) For a wedding, the decoration was done only with yellow and golden marigold flowers. 32,456 yellow and 57,544 golden marigolds were used. How many flowers were used in all?



d) The Kalra family went on a tour of Kerala. They spent ₹ 8556 on travelling, ₹ 7500 on food and ₹ 6780 on their stay. How much money did they spend in all?

e) The population of Town A is 34,325. The population of Town B is 34,750. Which town has a larger population? How much more?

f) A car company produced 95,556 cars in a year. They sold 84,324 cars. How many cars were left unsold?



g) Mr Mani bought a car in 2013. It ran 12,869 km in 2013 and 23,632 km in 2014. How many kilometres did it run in all in the two years?

h) The population of a town in 2013 was 38,250. It increased to 42,703 in 2014. Find the increase in population.

i) There were 12,456 bags of wheat in a godown. 3,578 bags were taken out on Monday, and 4,576 were taken out on Tuesday. How many bags of wheat remain in the godown?



j) From a wire 30,000 m long, two pieces of 12,455 m and 10,455 m were cut. Find the length of the remaining wire.

Higher Order Thinking Skills

1. Roy's teacher asked him to subtract 35 from a number. He subtracted 30 instead, and got an answer.

What should he do to correct his mistake?

- a) Add 5 to the answer b) Add 30 to the answer
c) Subtract 5 from the answer d) Subtract 35 from the answer

2. Mini thought of a number between 789 and 834. All the digits of her number are hidden. Which of these could have been the digit in the tens place in Mini's number?

- a) 7 b) 5 c) 2 d) 4

3. One of these numbers when subtracted from 360, gives an answer less than 100. Which of these is that number?

- a) 170 b) 280 c) 60 d) 210

DELHI PUBLIC SCHOOL, GANDHINAGAR

CLASS : 4

SUBJECT: MATHS

Academic Session 2020-21

CHAPTER -3 MULTIPLICATION

CONCEPT:

- Multiplication of a whole number is repeated addition.
- In the multiplication fact,

$$7 \quad \times \quad 5 \quad = \quad 35$$

Multiplicand \times Multiplier = Product

PROPERTIES OF MULTIPLICATION:

1) Two numbers can be multiplied in any order. The product remains the same.

Eg: $6 \times 8 = 48$ or $8 \times 6 = 48$

2) Three or more numbers being multiplied together can be grouped in any way. The product remains the same.

Eg : $6 \times (2 \times 5) = 60$ or $(6 \times 2) \times 5 = 60$

3) The product of 1 and any number is the number itself.

Eg : $8 \times 1 = 8$

4) The product of 0 and any number is 0.

Eg: $7 \times 0 = 0$

EXERCISE-1

1.Fill in the blanks using the properties of Multiplication.

a) $324 \times 1 =$ _____

b) $123 \times 0 =$ _____

d) $190 \times 10 = 10 \times$ _____

e) $(34 \times 46) \times 12 = 34 \times (\quad \times 12)$

g) $0 \times 0 =$ _____.

h) _____ $\times 1 = 1$

i) $650 \times$ _____ $= 0$

EXERCISE-1(Check your answer)

1.Fill in the blanks using the properties of multiplication.

a) $324 \times 1 = 324$

b) $123 \times 0 = 0$

d) $190 \times 10 = 10 \times 190$

e) $(34 \times 46) \times 12 = 34 \times (46 \times 12)$

g) $0 \times 0 = 0$

h) $1 \times 1 = 1$

i) $650 \times 0 = 0$

MULTIPLYING BY 10, 100, 1000 (EXPLANATION)

- To multiply a number by 10, multiply the number by 1 and put one zero to the right of the number.

Eg: $23 \times 10 = 230$, $129 \times 10 = 1,290$

- To multiply a number by 100, multiply the number by 1 and put two zeros to the right of the number.

Eg: $45 \times 100 = 4500$, $654 \times 100 = 65,400$

- To multiply a number by 1000, multiply the number by 1 and put three zeros to the right of the number.

Eg: $18 \times 1000 = 18,000$

MULTIPLYING BY 200, 300, 2000.....(EXPLANATION)

- To multiply a number by 200, multiply the number by 2 and put two zero to the right of the number.

Eg: $18 \times 200 = 3600$

- To multiply a number by 3000, multiply the number by 3 and put three zeros to the right of the number.

Eg: $24 \times 3000 = 72000$

EXERCISE -2

1 Multiply :

a) 255×10

- b) 255×100
- c) 305×20
- d) 115×300
- e) 22×1000
- f) 12×6000
- h) 45×4000

EXERCISE-2(Check your answer)

1 Multiply :

- a) $255 \times 10 = 2,550$
- b) $255 \times 100 = 25,500$
- c) $305 \times 20 = 6,100$
- d) $115 \times 300 = 34,500$
- e) $22 \times 1000 = 22000$
- f) $12 \times 6000 = 72,000$
- h) $45 \times 4000 = 1,80,000$

EXERCISE-3

Q-1 MULTIPLY

a)

2	3	0	4
×			3
6	9	1	2

b)

	5	2	0	6
	×			8
4	1	6	4	8

Self Practice(Home work)

- b) $1245 \times 5 = \underline{\hspace{2cm}}$
- c) $2113 \times 7 = \underline{\hspace{2cm}}$
- e) $3194 \times 6 = \underline{\hspace{2cm}}$
- h) $3409 \times 7 = \underline{\hspace{2cm}}$

Q.2 Word Problem

- a) The distance from Delhi to Mumbai is 1432 km. If I go from Delhi to Mumbai and come back, how much distance have I covered?

Solution:

Distance from Delhi to Mumbai = 1432 km

$$\begin{aligned}\text{Total distance covered by me} &= 1432 \text{ km} \times 2 \\ &= 2864 \text{ km}\end{aligned}$$

Ans: Total distance covered by me is 2864 km

EXERCISE-4

Q1 Multiply

			1	9	4
		×		3	3
			5	8	2
	+	5	8	2	0
		6	4	0	2

			2	0	8	
		×		6	4	
			8	3	2	
	+	1	2	4	8	0
		1	3	3	1	2

Q.2 Word Problem:

- a) In a farm, 240 potato plants are planted in a row. If there are 24 such rows, how many potato plants are there?

Solution:

Plants in a row = 240

$$\begin{aligned}\text{Plants in 24 such rows} &= 240 \times 24 \\ &= 5,760\end{aligned}$$

Ans-There are 5,760 plants in all.

MULTIPLYING 3-DIGIT NUMBER BY 3-DIGITNUMBER

EXERCISE-5

Q1.Multiply

			7	4	6	
		×	1	2	3	
			2	2	3	8
		1	4	9	2	0
+		7	4	6	0	0
		9	1	7	5	8

			3	4	7		
		×	8	0	2		
			6	9	4		
+			0	0	0	0	
		2	7	7	6	0	0
		2	7	8	2	9	4

Q2.Word Problem:

a) A book has 264 pages. How many pages do 110 such books have?

Solution:

Number of pages in a book = 264

Number of pages in 110 such books= 264×110

29,040

Ans: There are total 29,040 pages in 110 books .

SELF PRACTICE

A) 273×752

				2	7	3
		×		7	5	2
				5	4	6
+		1	3	6	5	X
	1	9	1	1	X	X
	2	0	5	2	9	6

B) 754×208

MENTAL MATHS

Q1) Fill in the blanks

a) $350 \times 0 \times 350 =$ _____.

b) _____ $\times 435 \times 56 = 0$

c) _____ $\times 0 = 0$

d) $34 \times 20,000 =$ _____

e) A shop had 45 packets of chips arranged in 1 row. The shopkeeper had no chips packets left at the end of the day. He sold _____ packets during the day.

MENTAL MATHS: (CHECK YOUR ANSWERS)

Q1) Fill in the blanks

a) $350 \times 0 \times 350 = 0$.

b) $0 \times 435 \times 56 = 0$

c) $0 \times 0 = 0$

d) $34 \times 20,000 = 6,80,000$

e) A shop had 45 packets of chips arranged in 1 row. The shopkeeper had no chips packets left at the end of the day. He sold 45 packets during the day.

Q2. Write the product without actually multiplying.

D) $350 \times 20 =$ _____.

$35 \times 2 = 70$

$350 \times 20 = 7,000$

E) $350 \times 200 =$ _____.

$35 \times 2 = 70$

$350 \times 200 = 70,000$

Q3. Find the product by regrouping

A) $432 \times 5 \times 2$

$432 \times \underline{5 \times 2}$

432×10

4320

B) $123 \times 50 \times 2$

$123 \times \underline{50 \times 2}$

123×100

12300

TEST OF CHAPTER3-MULTIPLICATION

Q1. Fill in the blanks: (2 marks)

a) $123 \times 0 = \underline{\hspace{2cm}}$.

b) $\underline{\hspace{2cm}} \times 1 = 143$

Q2. Solve the following

a) Which number multiplied by itself is 81?(1mark)

b) A baker bakes 329 loaves of bread a day. How many loaves of bread does he bake in one year?(3 marks)

CHAPTER 14

HANDLING DATA

What is data? (EXPLANATION)


- A collection of facts, such as numbers, words, measurements, observations or even just descriptions of things. We can present data in the form of a pictograph/ pie chart/bar graph/table/tally chart etc





PICTOGRAPH (TEXT BOOK)

Pictorial or visual representation of data is called pictograph.

Check what you know

1. The picture graph shows the number of story books read by four friends in a month. Answer the questions below.

Each  stands for 2 books.

	Number of story books read
Arnav	
Ishaan	
Devika	
Lakshmi	

a) Who read the most number of books? Lakshmi
How many? 10

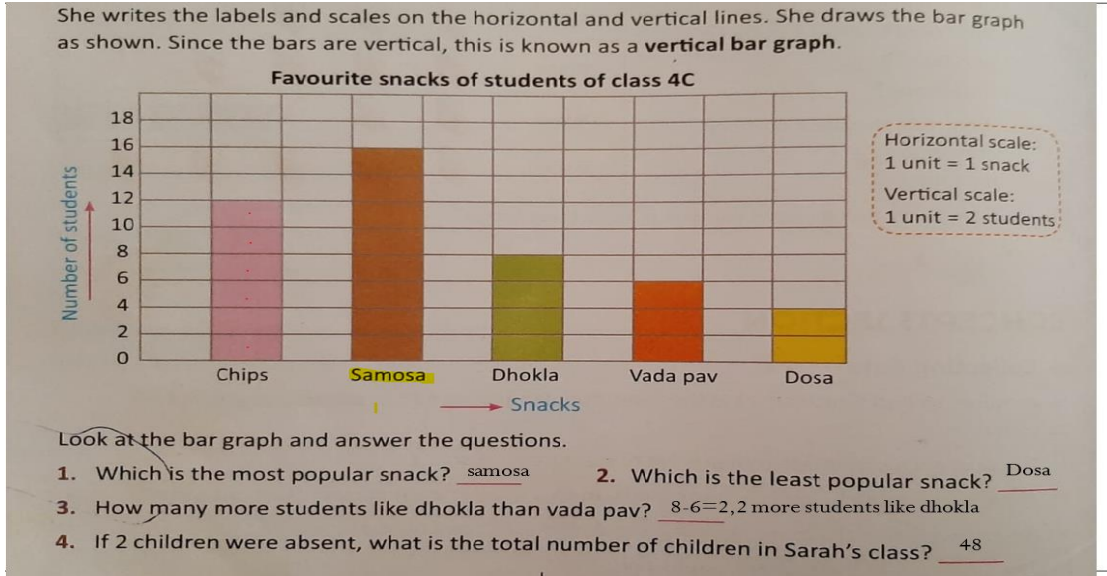
b) Who read the least number of books? Devika
How many? 4

c) How many more books did Ishaan read than Arnav? 2(8-6)

BAR GRAPH (TEXT BOOK)

A **graph** drawn using rectangular **bars** to show how large each value is

- The **bars** can be horizontal or vertical.



TALLY CHART

- A **tally** chart is one method of collecting **data** with **tally marks**. **Tally marks** are frequencies, occurrences, or total numbers being measured for a specific category in a **data** set.

TEXTBOOK

EXERCISE 1

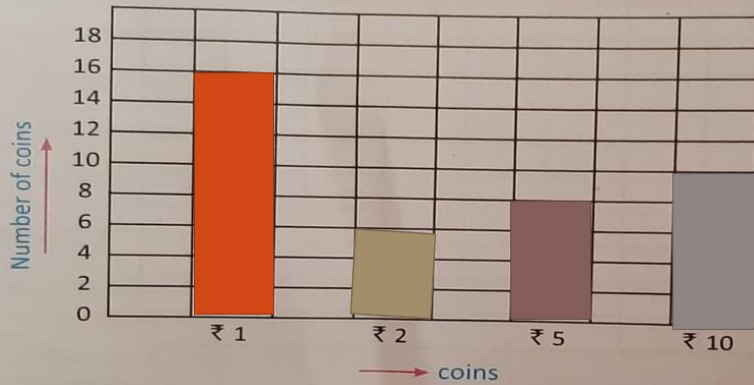
- a) The pictures show the number of coins in Rakesh's money box. Count the coins and fill in the table.



Coins	Tally marks	Number of coins
₹1		16
₹2		6
₹5		8
₹10		10

b) Draw a bar graph to show the data, using the vertical scale 1 unit = 2 coins. Give the graph a heading and write the scales.

Heading: Coins in Rakesh's money box



Horizontal scale:

Vertical scale:

c) Find the value of the coins of each type and the total money in Rakesh's money box.

$$\begin{aligned} \text{₹ 1: number} &= \underline{16}, \text{ value} = \underline{16} \times \text{₹ 1} = \underline{16} \\ \text{₹ 2: number} &= \underline{6}, \text{ value} = \underline{6} \times \text{₹ 2} = \underline{12} \\ \text{₹ 5: number} &= \underline{8}, \text{ value} = \underline{8} \times \text{₹ 5} = \underline{40} \\ \text{₹ 10: number} &= \underline{10}, \text{ value} = \underline{10} \times \text{₹ 10} = \underline{100} \end{aligned}$$



Q.2) The marks obtained in maths out of 100 by 5 friends are: (TEXTBOOK)

Answer the following:

A) What does the vertical line show?

Ans: The vertical line shows marks obtained by the students.

B) What is the vertical scale used ?

Ans; 1unit= 5 marks

C) What does the horizontal line show?

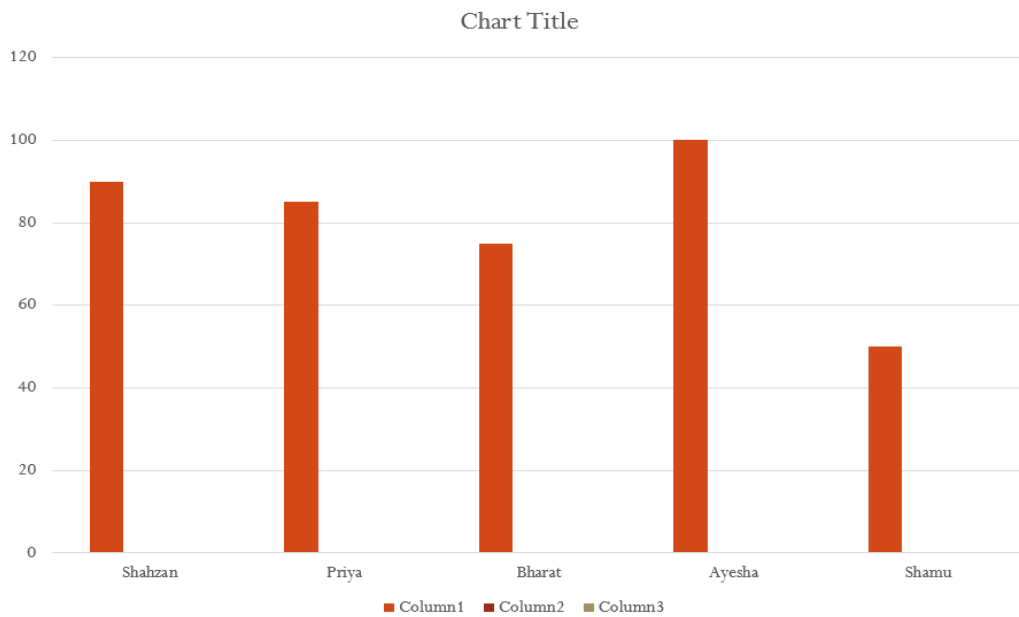
Ans: The horizontal line shows students' name.

D) Who stood first in class in Maths?

Ans: Ayesha stood first in class in Maths.

E) What was the difference in marks between the students who got the most and the least marks?

Ans: The difference between the most and least marks is 50.(100-50=50)



CIRCLE CHART (TEXT BOOK)

- A **circle graph**, or a **pie chart**, is used to visualize information and data.

Example 2: The number of children in class 4B who use different modes of transport for coming to school is shown in the circle graph.

Answer these questions:

What fraction of children walk to school? $\frac{1}{8}$

How do most children come to school? School bus

If the total number of children in the class is 48, how many:

- use the school bus? $\frac{1}{2} \times 48 = \underline{48 \div 2 = 24}$
- use their own car? $\frac{1}{8} \times 48 = \underline{48 \div 8 = 6}$
- walk to school? $\frac{1}{8} \times 48 = \underline{6}$
- use a cycle? $\frac{1}{4} \times 48 = \underline{12}$

Mode of Transport	Fraction	Number of Children
School bus	$\frac{1}{2}$	24
Cycle	$\frac{1}{4}$	12
Car	$\frac{1}{8}$	6
Walk	$\frac{1}{8}$	6

EXERCISE 2

1. The circle chart shows the number of students in a class who like different kinds of story books. Answer the questions.

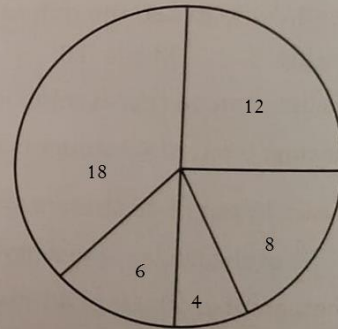
- a) Which is more popular—mystery stories or fairy tales? Ans: Mystery stories are more popular
- b) Between animal stories and science fiction, which is more popular? Ans: Both are same
- c) Monu says, 'More than half the class likes mystery stories.' Is he correct? Ans: It is Incorrect
- d) Between fairy tales and animal stories, which is more popular? Ans: Fairy tales is more popular



2. The number of students who like different colours is as follows.

- Yellow: 6
Red: 12
White: 4
Green: 18
Blue: 8

Colour the different parts of the circle in these colours to represent the data.



SKILLS SECTION (calculation, application and analysing skills)




Mixed Bag

1. Choose the correct answer.

- a) A bar graph is made to show the number of lucky dip tickets sold by 5 friends. The horizontal scale is 1 unit = 1 friend, and the vertical scale is 1 unit = 10 tickets. Sandeep sold 90 tickets. How long is the bar against his name?
- i. 90 units ii. 10 units iii. **9 units** iv. 1 unit
- b) In the same bar graph, the bar against Gita's name is 6 units long. How many tickets did Gita sell?
- i. 6 ii. **60** iii. 10 iv. 1
- c) 60 students of Gems School were asked what games they wanted to play. The data was then shown on a circle graph. 15 students opted for cricket. What fraction of the circle graph represents cricket?
- i. $\frac{1}{2}$ ii. $\frac{1}{4}$ iii. $\frac{1}{8}$ iv. $\frac{1}{10}$
- d) What does $\overline{\text{||||}}$ $\overline{\text{||||}}$ $\overline{\text{||||}}$ $\overline{\text{||||}}$ represent?
- i. **20** ii. 4 iii. 40 iv. 16

Maths	English	Maths	Science
P.E.	Art	EVS	Maths
English	English	Science	Maths
P.E.	P.E.	Art	EVS
Art	English	Science	Science
EVS	EVS	Science	Art
Art	Science	P.E.	English
English	EVS	Maths	Science
Art	P.E.	English	English
EVS	EVS	English	Maths



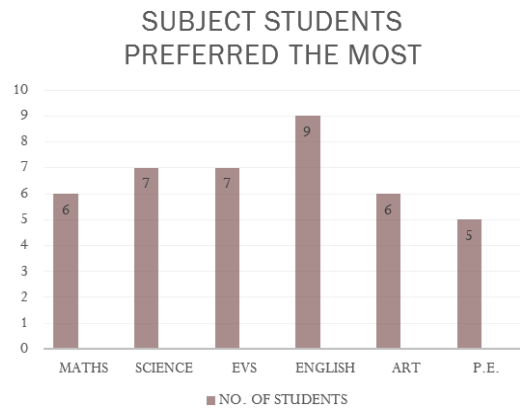
Put the data into the tally chart below.

Serial No.	Subject	Tally marks	Total number
1.	Maths		6
2.	Science		7
3.	EVS		7
4.	English		9
5.	Art		6
6.	P.E.		5
TOTAL			

Now from the tally chart above, draw a bar graph to show the results of Pinku's survey. Remember to give your graph a title and write the scale.

Bar graph in NOTEBOOK Q2 AND Q3

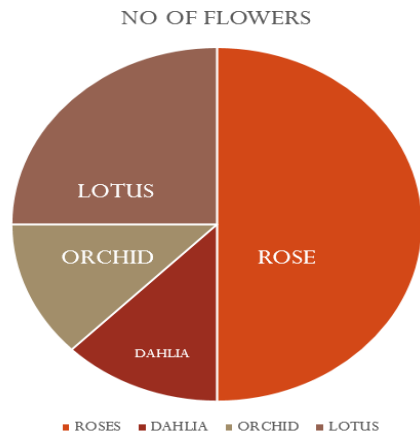
SUBJECT	NO. OF STUDENTS
MATHS	6
SCIENCE	7
EVS	7
ENGLISH	9
ART	6
P.E.	5



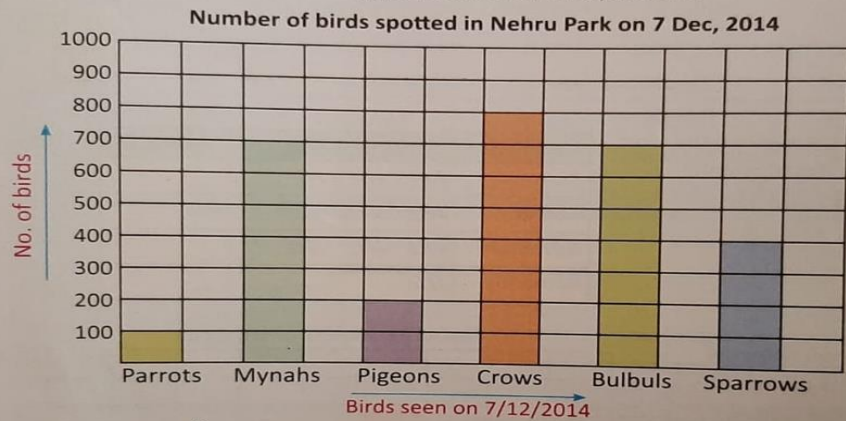
- Q2-Draw the bar graph to show the results of Pinku's survey(See Page no 207)

Q3.The number of flowers of each kind sold from shop are as shown

FLOWER	NO OF FLOWERS
ROSES	60
DAHLIA	15
ORCHID	15
LOTUS	30

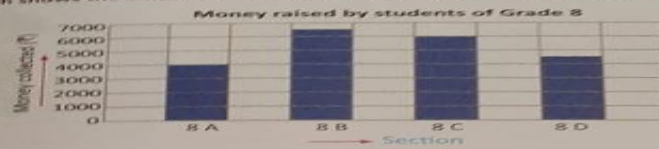


Scientists gather data all the time. Look at the data Tom, the bird watcher, collected on a single day while he was in a city garden. Answer the questions.



- Tom saw 6 different types of birds on 7 Dec, 2014.
- Tom saw the greatest number of CROWS.
- Tom saw double the number of sparrows as PIGEON.
- Tom saw the same number of Mynahs as BULBULS.
- The bird he saw the least numbers of was the PARROT.

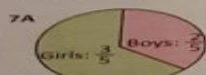
2. The bar graph shows the amount of money collected by students of Grade 8 in the annual fair.



Does this graph show that more students took part in the money collection drive from Grade 8B than from other sections?

- a) Yes b) No **c) Cannot say** d) Number of students was equal in all sections.

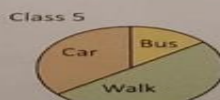
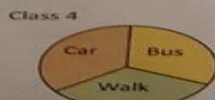
3. Class 7A has 30 students, and Class 7B has 20 students. The circle graphs show the fraction of boys and girls in each class.



Which class has more number of boys?

- a) 7A **b) Both have equal number of boys** c) 7B d) Cannot say

4. The pie charts show how the students of class 4 and class 5 come to school. Can we say that more students in class 4 take the bus to come to school, than in class 5?



- a) Yes** b) No c) Cannot say because information is incomplete

1. Rinku carried out a survey on the favourite cricketers of her friends. She put the data in a table without giving the tally marks. Can you insert the tally marks?

Cricketer	Tally marks	Number
Virat		15
Dhoni		12
Shikhar		9
Rishab		10

2. This circle graph shows what Sita spends her money on, in the month of August.



- a) If Sita earns ₹ 8000, how much does she spend on food? Rs. 2000
 b) What fraction of her salary does Sita spend on her car? $1/8$
 c) How much does Sita give as rent? Rs. 5000

CLASS TEST

1. A survey was done to collect information about the kinds of programmes people liked to watch on the TV. This is the information collected from 20 people.

Put the data into a tally chart and represent it on a bar graph, on a separate sheet of paper.

news serials reality shows sports movies movies reality shows
 serials serials movies news sports news news
 serials sports news serials reality shows news

Tally chart

Type of programme	Tally marks	Number
News		
Serials		
Reality shows		
Sports		
Movies		

2. Complete the table and make a pie chart for the data.

Favourite Hobby	Number	Fraction
Reading	10	
Football	20	
Skating	5	
Cricket	5	

DELHI PUBLIC SCHOOL, GANDHINAGAR

CLASS : 4

SUBJECT: MATHS

Academic Session 2020-21

CHAPTER-5

MULTIPLES AND FACTORS

A multiple of a number is formed by multiplying the number by 1,2,3,4,5

For ex- Multiples of 3

3,6,9,12,15

Properties of multiples {explanation}

Property (1):

Every number is the multiple of itself

Property (2):

Every number is the multiple of 1.

Property (3) :

Every multiple except zero is either equal to or greater than any of its factors.

As, multiple of 7 = 7, 14, 28, 35, 77,, etc.

Property 4:

A number has an uncountable number of multiples . There is no largest multiple of a number.

Exercise- 1 (Notebook)

Q. 1 Fill in the blanks.

a) 12 is a multiple of 3. It is also a multiple of 1, 12, 2, 4 and 6.

c) The number is 30 or 60 or 120 is a multiple of both 5 and 6.

e) The number 30 or 60 is a multiple of 2, 3 and 5.

f) The smallest multiple of 21 is 21.

Finding the multiples of a number (explanation)

- To find the multiples of a number, multiply the number by 1, 2,3 ,4 ,5

Example- The first 5 multiples of 8 are

$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

Exercise- 2(Notebook)

Q.1 Find the first multiples of :

- b) 9 – 9,18,27,36,45.
 e) 15- 15,30,45,60,75.
 f) 20- self practice

Q.2 Check if the first number is a multiple of the second number.

b) 64,8

$$64 \div 8 = 8$$

Since there is no remainder, 64 is a multiple of 8.

c) 73,9

$$73 \div 9 = 8, \text{ Remainder} = 1$$

Since there is a remainder, 73 is not a multiple of 9.

		8
9	7	3
	7	2
	0	1

Q.3 Write the multiples of:

b) 15 that are smaller than 50.

Ans. 15,30,45

c) 20 that are between 75 and 125

Ans. 80,100,120.

Q.4 Ring or underline the numbers that are multiples of both 1 and 2

1, 2, 4, 5, 8, 10, 15, 16, 18, 20

Q.5 Ring the numbers that are multiples of both 3 and 5.

1, 2, 3, 4, 5, 9, 12, 15, 18, 20

Common multiples

Exercise-3 (notebook)

Q.1 In Textbook

Q.2 List the first 10 multiples of each number and find the common multiples.

a) 3 and 5

Multiples of 3- 3, 6,9,12,15,18,21,24,27,30

Multiples of 5- 5,10,15,20,25,30,35,40,45,50

Common multiples= 15, 30

d) 6 and 8

Multiples of 6- 6,12,18,24,30,36,42,48,54,60

Multiples of 8- 8,16,24,32,40,48,56,64,72,80

Common multiples- 24, 48

What are Factors? (Explanation)

- ❖ A factor of a number divides the number without leaving a remainder.
- ❖ The factors of a number can be found by multiplication or division.
- ❖ Eg :The factors of 6 by multiplication: 1, 2, 3 and 6
- ❖ $1 \times 6 = 6$
- ❖ $2 \times 3 = 6$
- ❖ $3 \times 2 = 6$ STOP

Properties of Factors (explanation)

- 1 is the **factor** of every number.
- Every number is the **factor** of itself.
- A number has a limited number of **factors**.
- The **smallest factor** of a number is 1.
- The **biggest factor** of a number is 1.
- A **factor of a number** is **either smaller than or equal** to the number.

Exercise-4 (notebook)

1. $8 \times 9 = 72$

Therefore, 8 and 9 are factors of 72.

72 is a multiple of 8 and 9.

2. Which number has only 1 factor? 1

3. Which is the:

Smallest factor of 425? 1

Greatest factor of 425? 425

4. Is 2 a factor of an odd number? No

Exercise-5 (notebook)

Q.2 Find the factors by multiplication.

a) 14

$$1 \times 14 = 14$$

$$2 \times 7 = 14$$

$$7 \times 2 = 14 \text{ (STOP)}$$

The factors of 14 are 1, 2, 7 and 14

(f) 35

$$1 \times 35 = 35$$

$$5 \times 7 = 35$$

$$7 \times 5 = 35 \text{ (STOP)}$$

The factors of 35 are 1, 5, 7 and 35

g) 36

$$1 \times 36 = 36$$

$$2 \times 18 = 36$$

$$3 \times 12 = 36$$

$$4 \times 9 = 36$$

$$5 \times N.p$$

$$6 \times 6 = 36$$

$$7 \times n.p$$

$$8 \times n.p$$

$$9 \times 4 = 36$$

The factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18 and 36.

(c) 16 (H.W)

Q.3 Find the factors by division.

a) 18

$$18 \div 1 = 18$$

$$18 \div 2 = 9$$

$$18 \div 3 = 6$$

$$18 \div 4 = N.P$$

$$18 \div 5 = N.P$$

$$18 \div 6 = 3$$

The factors of 18 are 1, 2, 3, 6, 9 and 18

c) 25

$$25 \div 1 = 25$$

$$25 \div 2 = N.P$$

$$25 \div 3 = N.P$$

$$25 \div 4 = N.P$$

$$25 \div 5 = 5$$

The factors of 25 are 1, 5, 25

e) 93

$$93 \div 1 = 93$$

$$93 \div 2 = N.P$$

h) 28 – H.W

$$93 \div 3 = 31$$

$$93 \div 4 = \text{N.P}$$

$$93 \div 5 = \text{N.P}$$

$$93 \div 6 = \text{N.P}$$

$$93 \div 7 = \text{N.P}$$

The factors of 93 are 1, 3

31 and 93.

Q.4 Check if the second number is a factor of the first number. Write Y for yes or N for no.

a) 20,5 $20 \div 5 = 4$, remainder=0 Therefore, 5 is a factor of 20.	e) 50,7 $50 \div 7 = 7$, remainder=1 Since there is remainder so 7 is not a factor of 50.
G) 45,0 $45 \div 0 = 0$, remainder=45 Therefore, 0 is not a factor of 45.	h) 81,1 $81 \div 1 = 81$ Therefore, 1 is a factor of 81. H.W- I

Common factors
Exercise-6 (notebook)

Q.1 Find the factors of the numbers. Then list the common factors.

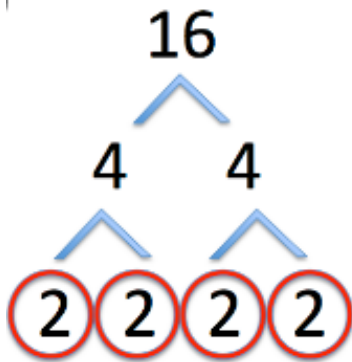
a) 4, 8

Factors of 4 $1 \times 4 = 4$ $2 \times 2 = 4$ $4 \times 1 = \text{STOP}$	Factors of 8 $1 \times 8 = 8$ $2 \times 4 = 8$ $4 \times 2 = \text{STOP}$
Factors of 4 = 1, 2, 4	Factors of 8 = 1, 2, 4, 8
Common factors of 4 and 8- 1, 2, 4	

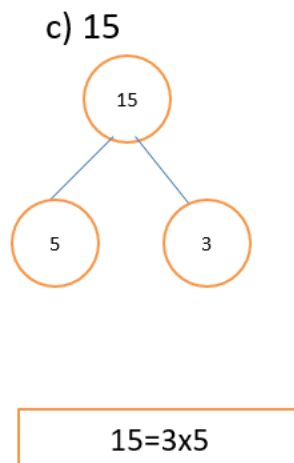
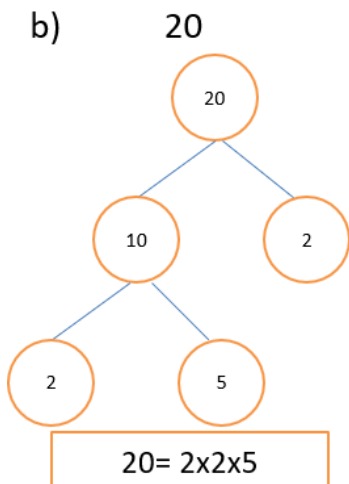
d) 14,21

Factors of 14 $1 \times 14 = 14$ $2 \times 7 = 14$ $7 \times 2 = \text{STOP}$	Factors of 21 $1 \times 21 = 21$ $3 \times 7 = 21$ $7 \times 3 = \text{STOP}$
Factors of 4 = 1,2,7,14	Factors of 8 = 1,3,7,21
Common factors of 14 and 21- 1,7	
H.W- E and F	

Q.2 Complete the factor tree of 16.



Q.3 Make factor tree for the following.



Tests of divisibility (explanation)

- **Divisibility by 2**

Every number that ends in even number i.e. 0,2,4,6 or 8 is divisible by 2.

Example: 26, 92, 104, 200, 398 etc

- **Divisibility by 3**

If the sum of the digits of the given number is divisible by 3, then the given number is also divisible by 3.

Example: 414

Sum of the digits of 414 = $4 + 1 + 4 = 9$

9 is divisible by 3 ($9 \div 3 = 3$). So, 414 is also divisible by 3.

- **Divisibility by 5**

Number that ends in 5 or 0 is divisible by 5.

Example: 165

Here last digit is 5. So, 165 is divisible by 5

- **Divisibility by 9**

Given number is divisible by 9, if the sum of the all the digits of given number is divisible by 9.

Example: 2016

Sum of the digit = $2 + 0 + 1 + 6 = 9$

9 is divisible by 9. So, 2016 is divisible by 9

- **Divisibility by 10**

Any number that ends in 0 is divisible by 10.

Example: 3670

As number ends in 0. So, 3670 is divisible by 10

Exercise-7 (Note-book)

Write yes if divisible and no if not divisible.

	Divisible by				
Number	2	3	5	9	10
a) 90	Y	Y	Y	Y	Y
c) 75	N	Y	Y	N	N

e)81	N	Y	N	Y	N
f)63	N	Y	N	Y	N
h)135	N	Y	Y	Y	N


Mental Maths (note-book)

1. The number 1 is a factor of every number.
2. Is there one number that is a multiple of every number? NO
4. The smallest factor of 9 is 1.
7. 25 is the smallest multiple of 25.
10. Is 35 a common multiple of 3 and 5? NO
12. Is 234567895 divisible by 5? YES


CHAPTER 6 GEOMETRY

Check what you know


1. Count and write the number of horizontal, vertical, slanting and curved lines in each figure.

a) 

Horizontal lines: _____
Vertical lines: _____
Slanting lines: _____
Curved lines: _____


b) 

Horizontal lines: _____
Vertical lines: _____
Slanting lines: _____
Curved lines: _____


c) 

Horizontal lines: _____
Vertical lines: _____
Slanting lines: _____
Curved lines: _____


2. Name the shapes. Count the number of faces, edges and corners each has.

a) 


Shape: _____
Straight faces: _____
Curved faces: _____
Straight edges: _____
Curved edges: _____
Corners: _____

b) 

Shape: _____
Straight faces: _____
Curved faces: _____
Straight edges: _____
Curved edges: _____
Corners: _____

c) 

Shape: _____
Straight faces: _____
Curved faces: _____
Straight edges: _____
Curved edges: _____
Corners: _____

d) 

Shape: _____
Straight faces: _____
Curved faces: _____
Straight edges: _____
Curved edges: _____
Corners: _____

CONCEPT SECTION:

➤ **LINE:**

- A line segment extending endlessly on both sides is called line.

- It is written as Line XY or XY



➤ **RAY:**

- A Ray is a part of a line. It starts at a point and extends endlessly on one side.



- It is written as Ray OA or OA



O

A

➤ **POINT:**

- A point is a very small dot made with a sharp pencil.
- It is written as point A

. A

➤ **LINE SEGMENT:**

- A line segment is the straight path between two points.

- It is written as line segment AB or \overline{AB}



EXERCISE 1 (TEXT BOOK)

It is shown with an arrow on one end.

EXERCISE 1

1. Name these.

a) Ray OA or OA

b) Line segment PQ or \overline{PQ}

c) Line XY or \overleftrightarrow{XY}

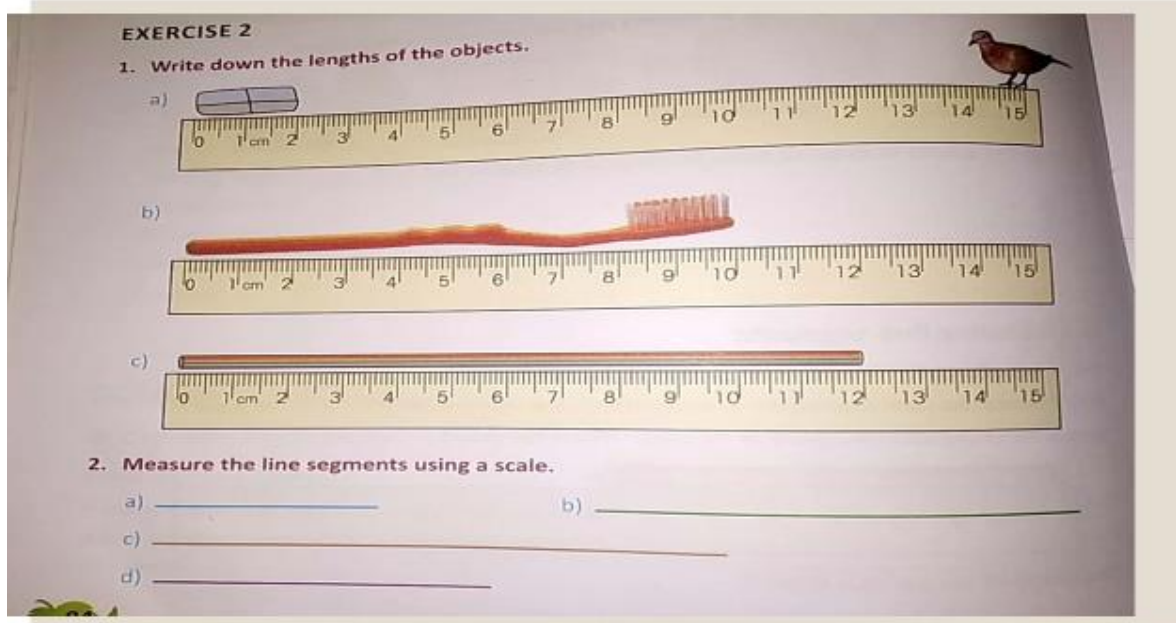
2. Count and write the number of corners and line segments in each figure.

a) b) c) d)

3. Join the points to draw as many line segments as you can.

a) b)

EXERCISE 2 (TEXT BOOK)



EXERCISE 3 (NOTEBOOK)

Q.1 Draw line segments of the following lengths .(Note book)

a) 12 cm

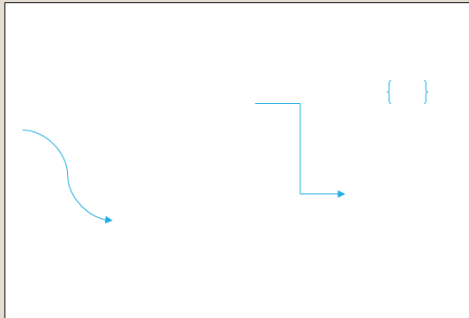
c) 8cm

e) 9 cm

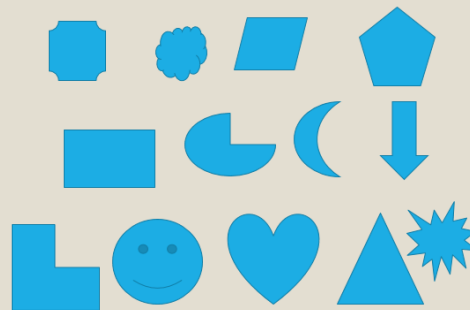
CLOSED FIGURES (EXPLANATION)

CLOSED FIGURES

OPEN FIGURES

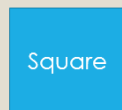


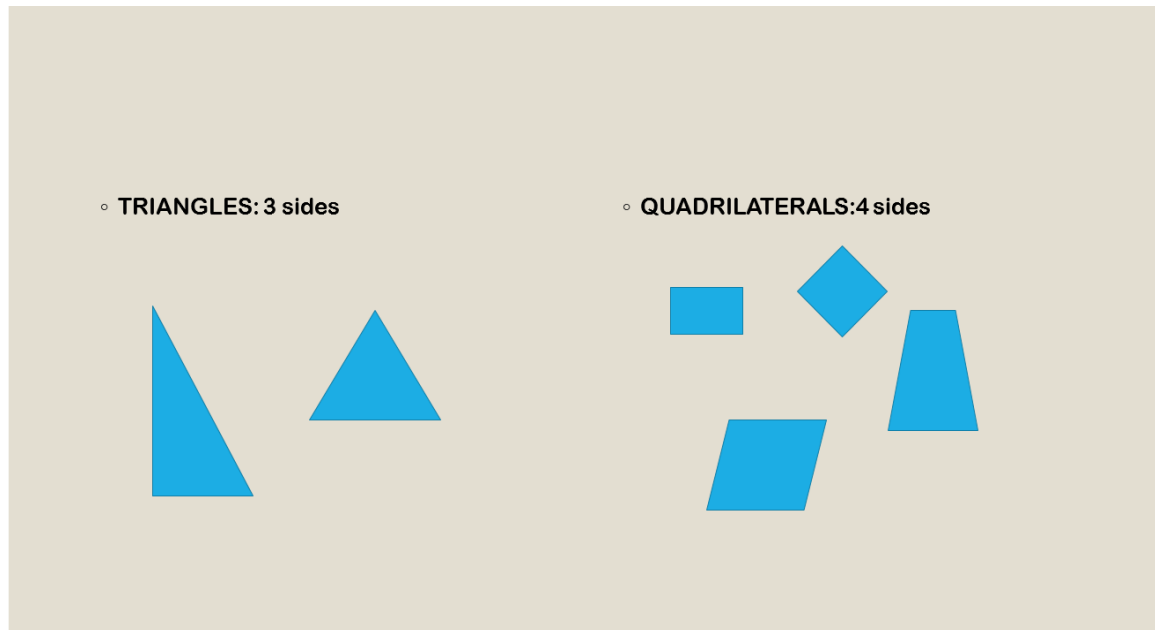
CLOSED FIGURES



POLYGONS:

- The closed figures which are made up of straight line segments are called polygons.

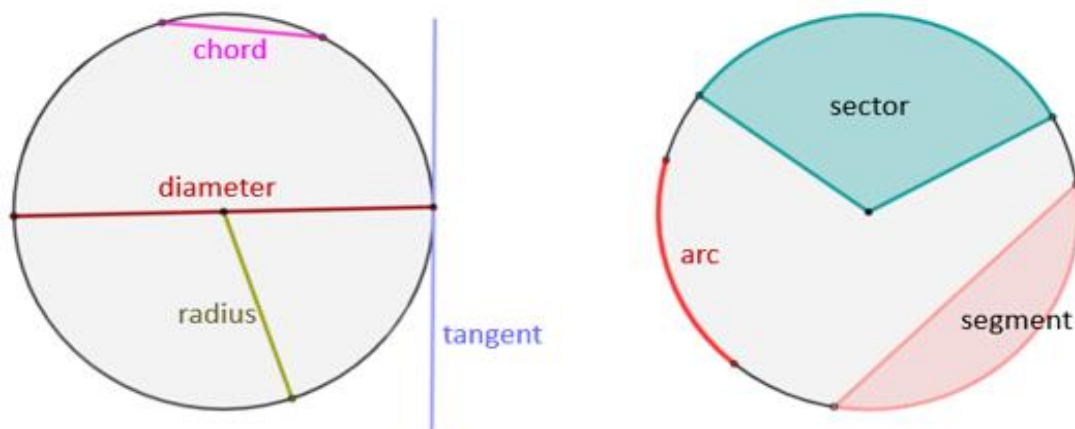




PARTS OF A CIRCLE (NOTE BOOK)

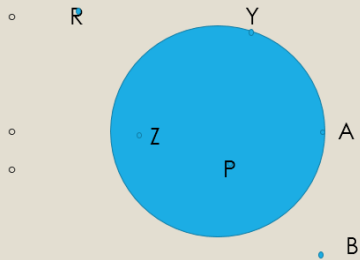
- Students will draw 4 circles using bangle and cut it.
- **DIAMETER** :A line segment joining two points on a circle and passing through the centre is a diameter of the circle.
- **RADIUS**: Any line from the centre to the circle is a radius of the circle.
- **CENTRE**: The point exactly at the centre of the circle is the centre of the circle.
- **CIRCUMFERENCE**: The length around the circle is called its Circumference.

Parts of a Circle



INTERIOR, EXTERIOR AND ON THE CIRCLE (EXPLANATION)

INTERIOR, EXTERIOR AND ON THE CIRCLE



◦ LOOK AT THE CIRCLE:

INTERIOR POINTS: Z , P

EXTERIOR POINTS: R , B


ON THE CIRCLE: A , Y


EXERCISE 4 TEXT BOOK

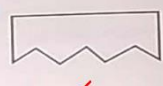
Rectangles Squares


EXERCISE 4

1. Identify the closed figures. Colour them.


a) 


b) 

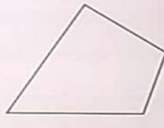
c) 


d) 

2. Identify the polygons. Colour them. ✓

a) 

b) 

c) 

d) 

3. Draw the following in your note book. ✓

a) A triangle

b) A rectangle

c) A square

d) A quadrilateral that is neither a rectangle nor a square.

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EXERCISE 5 (TEXT BOOK)

EXERCISE 5

1. Fill in the blanks.

- a) A circle is a closed (closed/open) figure.
- b) A circle does not (does/does not) have straight sides.
- c) If the radius of a circle is 3 cm, its diameter is 6 cm, and the distance from the centre of the circle to a point on the circle is 3 cm.
- d) If the diameter of a circle is 10 cm, its radius is 5 cm, and the distance from the centre of the circle to a point on the circle is 5 cm.
- e) In a circle of diameter 16 cm, the distance between the centre of the circle and a point on the circle is 8 cm.



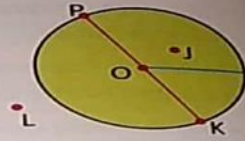
EXERCISE 6 (TEXT BOOK)

EXERCISE 6

1. Label the parts of this circle—centre, radius, diameter.

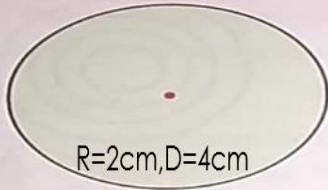
2. Fill in the blanks with inside, outside and on.

Point J: inside the circle
 Point K: on the circle
 Point L: outside the circle

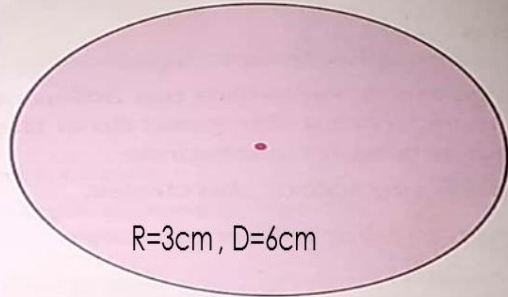


3. Measure the radius of the circle. Find the diameter by calculation.

a)

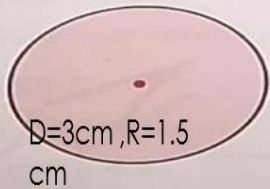


b)

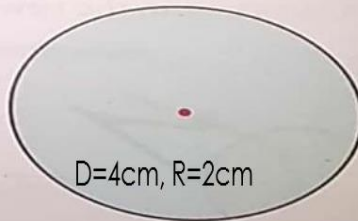


4. Measure the diameter of the circle. Find the radius by calculation.

a)





b)



WORKSHEET (TEXT BOOK)

WORKSHEET

1. Identify the following figures. a) Point b) Line segment c) Ray d) line

2. Draw:
 a) a line 
 b) a ray 

3. Identify the centre, radius and diameter of the circle.
 a) centre O b) radius OB or OA c) diameter OC

4. What will be the diameter of a circle if the radius is 12 cm? 24 cm (12X 2)




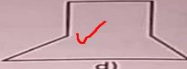
1. Identify the closed and open figures.
 a) closed b) closed c) open d) open

2. Draw a line segment AB of length 5 cm.


3. Measure the radius and diameter of the given circles.
 X: _____
 Y: _____

Two of the following are true. Identify them.
 a) Diameter $\times 2 =$ radius **FALSE**
 b) Radius $\div 2 =$ diameter **FALSE**
 c) Diameter $\div 2 =$ radius **TRUE**
 d) Radius $\times 2 =$ diameter **TRUE**

1. Identify the polygons in the following figures.

a)  a)  b)  c)  d)

2. Draw a rectangle ABCD of sides $AB = 4\text{ cm}$, $BC = 3\text{ cm}$.



3. Draw a circle with radius 5.5 cm . Measure its diameter.
Diameter = _____

a) What is the circumference of a circle? _____
The length around a circle is called its circumference.

b) Is it longer than, shorter than or of the same length as the diameter of the circle?
It is longer than the diameter.

TEST OF CHAPTER 6

- Q1. Identify the polygons in the following figures(2 cm)



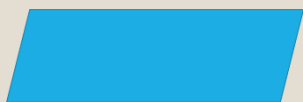
- Q.2. Find the radius of the circle with the diameter 26 cm . (2 cm)
- Q.3. Draw a quadrilateral that is neither a rectangle nor a square. (2 cm)

TEST OF CHAPTER 6 (Answers)

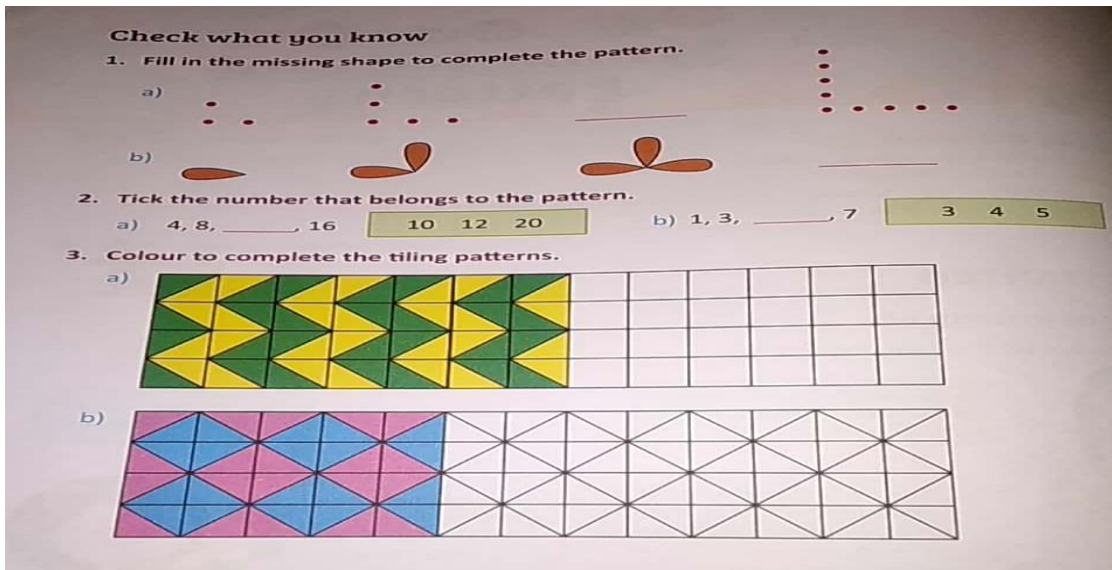
- Q1. Identify the polygons in the following figures(2 cm)



- Q.2. Find the radius of the circle with the diameter 26cm. (2 cm)
 - $R = D \div 2 = 26 \div 2 = 13$ cm
- Q.3. Draw a quadrilateral that is neither a rectangle nor a square. (2 cm)



CHAPTER-7 SYMMETRY AND PATTERN

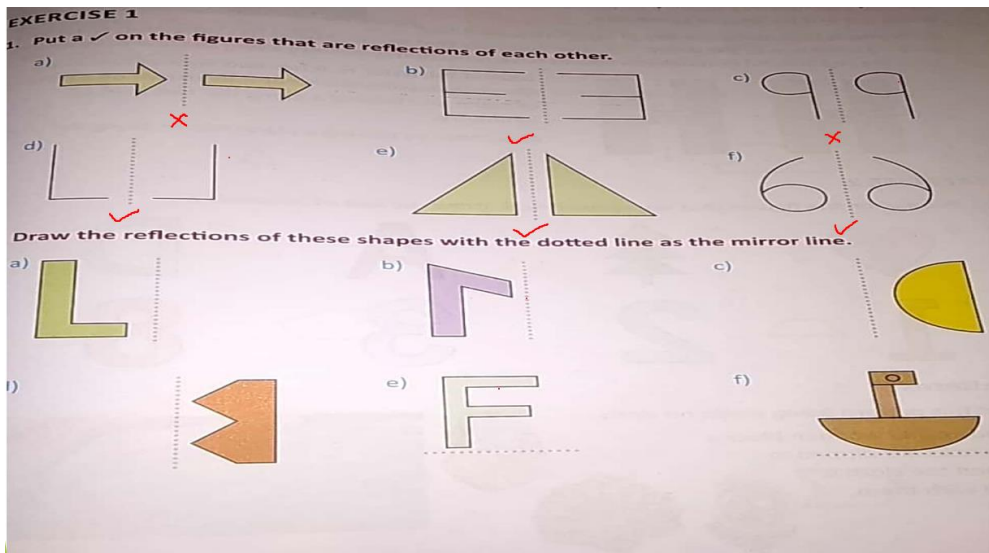


REFLECTION OR MIRROR SYMMETRY (Explanation)

- ▶ Reflection symmetry can also be called as mirror symmetry.
- ▶ In some cases the reflection is different from the shape whereas in some cases they are similar.
- ▶ A *Reflectional Symmetry* is a type of symmetry in which one half of the object is the mirror image of the other. A figure may have both horizontal and vertical lines of reflection.



- ▶ The line symmetry is closely related to mirror reflection.
- ▶ When dealing with mirror reflection, we have to take into account the left and right changes in orientation.
- ▶ Alphabets written from right to left, appear written from left to right in their mirror image.
- ▶ Symmetry has plenty of applications in everyday life as in art, architecture, textile technology, design creations, geometrical reasoning, Rangoli etc.



SYMMETRY AND REFLECTION SYMMETRY (Explanation)

- ▶ The line that divides a figure into two identical parts is called the Axis or line of symmetry.
- ▶ Line of symmetry can be
 - A) Horizontal
 - B) Vertical
 - C) Diagonal
 - D) It can be one, two or many line of symmetry.
 - E) Along with the shapes inner colors or design is also be noted while drawing line of symmetry

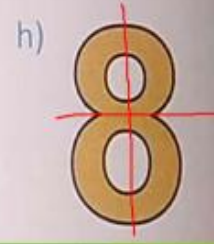
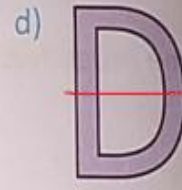
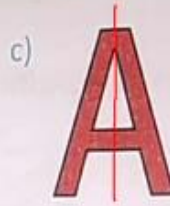
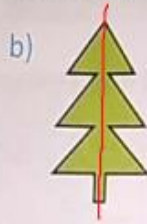
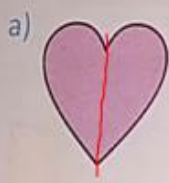
Activity (5 marks) to find line of symmetry by paper folding

Take 4 different shapes and fold and find line of symmetry in it.

- A) Square
- B) Rectangle
- C) Triangle
- D) Circle.
- E) Circle: draw smile and draw line of symmetry on it

EXERCISE 2

1. Put a ✓ on the figures that are symmetrical. Draw the line of symmetry.



◆ Using patterns to make codes

While writing secret messages coding is used, so that anyone else looking at the message cannot read the message, unless he or she knows the code. A simple code is to represent each letter of the alphabet by a number.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

Use the code to read the following message: 13 5 5 20 1 20 20 5 14 16 13

A more difficult code to crack is as follows. Complete the code and use it to write the above message.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W			
			w	v	u	t	s	r	q	p	o	n	m	l	k	j	i	h	g	f	e	d	c	b	a

EXERCISE 4

1. Read the message using the first code above: 12 5 20 19 7 15 20 15 16 12 1 25
2. Write the same message as in 1 using the second code.
3. Read the message using the second code above: RMWRZ DLM GSV NZGXS
4. Now write the message in 3 using the first code above.

Exercise 4 Note Book

Q1. Read the message using the first code.

12 5 20 19 7 15 20 15 16 12 1 25

Q3. Read the message using the second code.

RMWRZ DLM GSV NZGXS

HOME WORK:

Write I LOVE MATHS in code 1 and 2 both.

4. Now write the message in 3 using the first code above.

SKILLS SECTION (calculation, application and analysing skills)

Mixed Bag

1. Choose the correct answer.

a) Which of these shapes tessellate?



b) How many lines of symmetry are there in an equilateral triangle?

i. 1

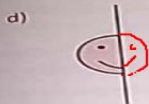
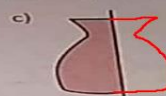
ii. 2

iii. 3

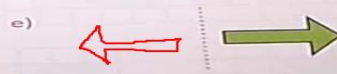
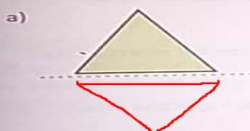
iv. 4



2. Draw the other half of the figures using the given line as the line of symmetry.



3. Draw the reflections of these shapes, with the dotted line as the mirror line.



✗ Continue the tessellation patterns. Colour them.



Higher Order Thinking Skills

- Which of these letters would look the same when reflected in a vertical mirror line?
 - B
 - C
 - H
 - L
- Which of these numbers would look the same when reflected in a horizontal mirror line?
 - 2
 - 3
 - 6
 - 7
- Which is the correct reflection of the figure, if a mirror is placed along the dotted line?

 -
 -
 -
 -
- Each letter is worth some points. The points are added up to make the total of the word.

TEE = 4	TEN = 6	NEST = 10	TENTS = ?
a) 20	b) 10	c) 12	d) 14
- Which number will come inside the last triangle? **Ans: a**
 (Hint: use multiplication and subtraction on the numbers outside the triangle to get the number inside)

messages, which code cannot be broken by...

WORKSHEET

- Which of the following are reflections of each other?
 -
 -
- Circle the symmetrical shapes.
 -
 -
 -
 -
- Which of these shapes can tessellate?
 -
 -

1. Draw the reflection of these shapes with the dotted line as the mirror line.



2. Draw the line of symmetry on each of these figures.



3. Which of these shapes can tessellate?



1. Draw the reflection of these shapes with the line as the mirror line.



2. Draw two lines of symmetry on each of these shapes.



3. Create a tessellation pattern using the given shape.



TEST OF CHAPTER-7 (6 marks)

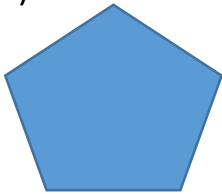
Q1. Draw the reflection of these shapes, using the dotted line as the mirror line.

a) Z

b) N

Q2. Draw the line of symmetry on these figures.

a)



b)



Q3. Write in the message using the first code.

I LIVE IN INDIA