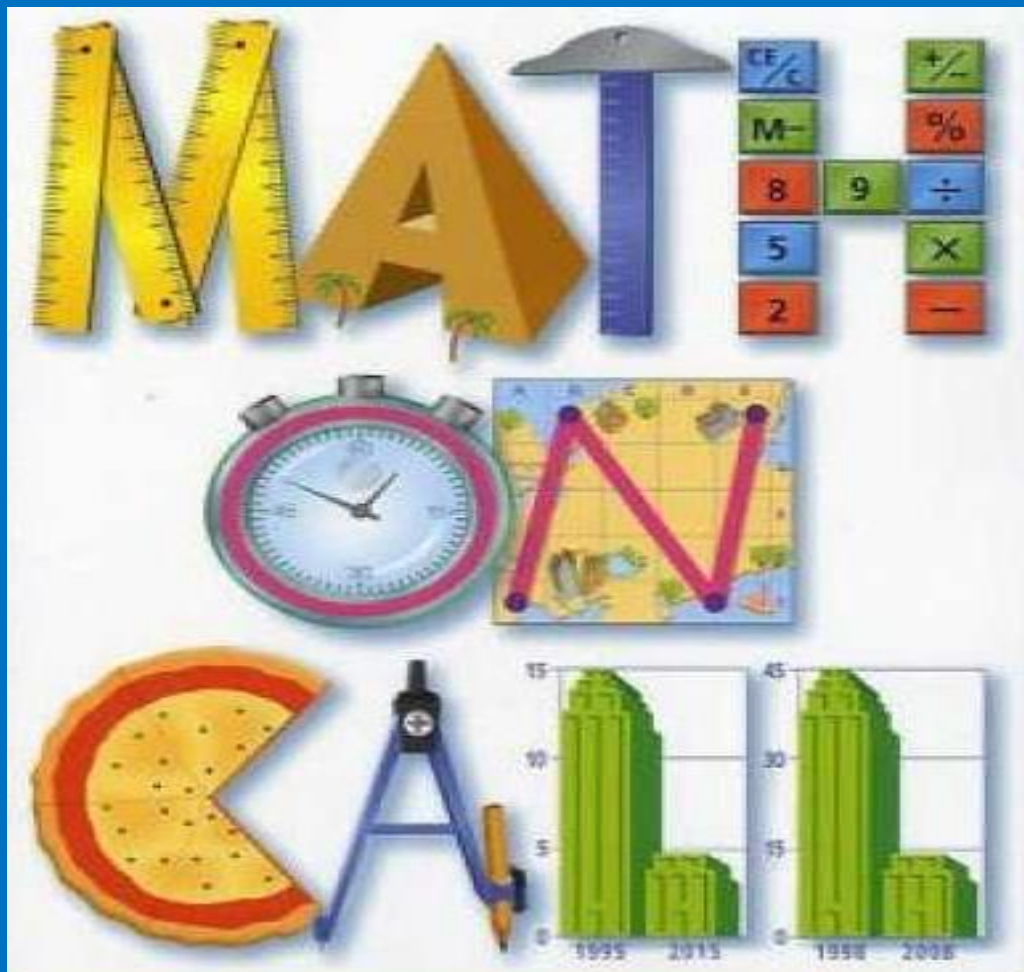




MATHEMATICS

Activity Book

Grade 3



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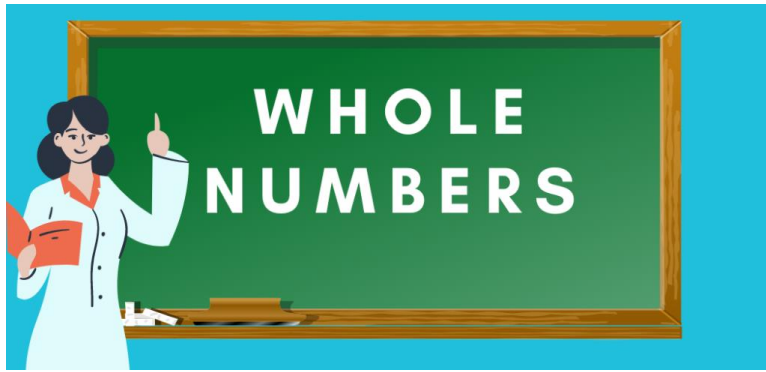
Date: _____

Day: _____

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4	Measurement (Length, Mass and Capacity)	76-100
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Unit 1



Learning Outcomes

After Completing this unit, you will be able to:

- Read Roman numbers up to 20.
- Write Roman numbers up to 20.
- Recognize even and odd numbers up to 99 within a given sequence.
- Differentiate between even and odd numbers within a given sequence.
- Identify the place values of numbers up to 5-digit
- Read and write given numbers up to 100 000 in numerals and words
- Represent a given number on number line up to 2-digit numbers.
- Identify the value of a number from number line up to 2-digit numbers.
- Compare two numbers up to 3-digit using symbols “<”, “>”, or “=”.
- Write the given set of numbers in ascending and descending order.
- Round off a whole number to the nearest 10 and 100



Unit # 1: Whole Numbers

Topic: Roman Numbers

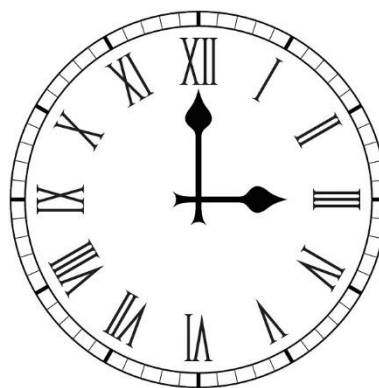
• Roman Numbers up to 20

1	=	I
2	=	II
3	=	III
4	=	IV
5	=	V
6	=	VI
7	=	VII
8	=	VIII
9	=	IX
10	=	X

11	=	XI
12	=	XII
13	=	XIII
14	=	XIV
15	=	XV
16	=	XVI
17	=	XVII
18	=	XVIII
19	=	XIX
20	=	XX

These Roman numerals are I, II, III, IV, V, VI, VII, VIII, IX, and X represent 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 respectively. After 10, the Roman numerals are followed by XI for 11, XII for 12, XIII for 13, ... till XX for 20.

The given numbers on the clock are called Roman numbers.



Date: _____

Day: _____

Activity # 1:

- With the help of matchsticks write the numbers in Roman form.

Numbers	Roman Form
9	
7	
3	
2	
10	
13	
5	



Unit # 1: Whole Numbers

Topic: Roman Numbers up to 20

Activity # 2:

- Tick the number each Roman numerals represent.

II		
2	5	1

VIII		
7	8	9

XVI		
16	12	15

XIV		
14	15	16

IV		
5	4	9

X		
10	5	20

XVIII		
18	28	13

XXII		
12	23	22

XXIII		
42	23	25

Teaching Point

Give different cards to the children on which digits numbers and Roman numbers are written recognize numbers from them.

Date: _____

Day: _____

Exercise 1



1 Write in the Roman numbers.

2 =

5 =

7 =

9 =

12 =

16 =

19 =

20 =

2 Count the given objects and write in Roman numbers.



3 Write the missing numbers.

6

IX

15

XVII

XX

18

Date: _____

Day: _____



Write Roman numbers 1 to 20.

Numbers	Roman Numbers

Importance of Roman numerals

- We use and see these numbers in our everyday life. We see them in books, newspapers, documents, clocks etc.
- They help us develop number sense.
- By learning Roman numeral, we can improve our mental math skill.

Day: _____



Count the beads in pairs.

- Odd numbers are not evenly divisible by 2 and end in 1, 3, 5, 7, or 9.

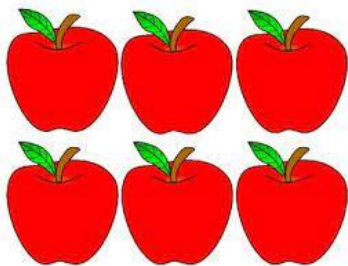
PROGRESSIVE EDUCATION NETWORK | 9

Date: _____

Day: _____

Activity # 3:

Count the following objects and write even/odd in the given box.



Date: _____

Day: _____

Activity # 4:

- Color all the odd number bubbles green
- Color all the even number bubbles pink.



91

90

33

68

47

88

27

3

10

55

4



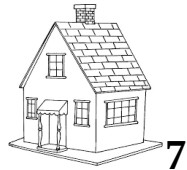
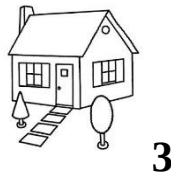
Teaching Point

Help the students to colour odd and even Numbers. If the students colour green these numbers are odd otherwise even.

Date: _____

Day: _____

Activity #5 Circle the house number that are odd in numbers.



Activity #6 Maze Game. Help the dog reach its food, by coloring even numbers.

		2	4	6	9	0
		2	56	7	67	33
100	87	1	16	77	57	31
69	88	54	22	83	91	11
85	90	93	99	83	65	45
32	100	53	13	19	29	37
66	41	25	8	14		
74	42	66	98	12		

Date: _____

Day: _____

Exercise 2



1. Write the odd numbers in between the given numbers.

(i) 4 and 16

(ii) 25 and 35

(iii) 20 and 34

2. Write the even numbers in between the given numbers.

(i) 1 and 10

(ii) 40 and 55

(iii) 21 and 35

3. Separate the even and odd numbers from the following:

2	5	9	18	21	28	35
56	67	73	79	80	84	87
90	93	94	95	97	98	100

Date: _____

Day: _____



Unit # 1: Whole Numbers

Topic: Place Values of Numbers up to 5 digits

Thousands	Hundreds	Tens	Ones
8	3	1	3

8 is at thousands place, so the value of 8	=	$8 \times 1\,000$	=	8 000
3 is at hundreds place, so the value of 3	=	$3 \times 1\,00$	=	300
1 is at tens place, so the value of 1	=	1×10	=	10
3 is at ones place, so the value of 3	=	3×1	=	3

The number is:

8 000	+	300	+	10	+	3	=	8 313
-------	---	-----	---	----	---	---	---	-------

The value of a digit is based on the place of the digit in that number.

A **5-digit number** is a number that has 5 digits, in which the first digit should be 1 or greater than 1 and the rest of the digits can be any number between 0-9. It starts from ten thousand (10,000) and goes up to ninety-nine thousand, nine hundred and ninety-nine (99,999).

Activity #7 Write the place value of underlined digits in the given blank.

(i) 5,103(ii) 7,0,49(iii) 5,924

(iv) 2,189

Date: _____

Day: _____

Numbers up to 100 000:

Which is the
greatest 3-digit
number?

The number which is greater than 3-digits,
we leave space after every 3-digits from
the right side of that number.

The greatest 3-digit
number is 999.

Activity #8

By adding 1 to 999, we get 1 000 as:

$$\begin{array}{r} 9 \quad 9 \quad 9 \\ + \quad 1 \\ \hline 1 \quad 0 \quad 0 \quad 0 \end{array}$$

You can be written in the place value
chart as:
Do it yourself:

Thousand Th	Hundreds H	Tens T	Ones O

The greatest 4-digit number is 9 999

By adding 1 to 9 999, we get 10
000.

$$\begin{array}{r} 9 \quad 9 \quad 9 \quad 9 \\ + \quad 1 \\ \hline 1 \quad 0 \quad 0 \quad 0 \quad 0 \end{array}$$

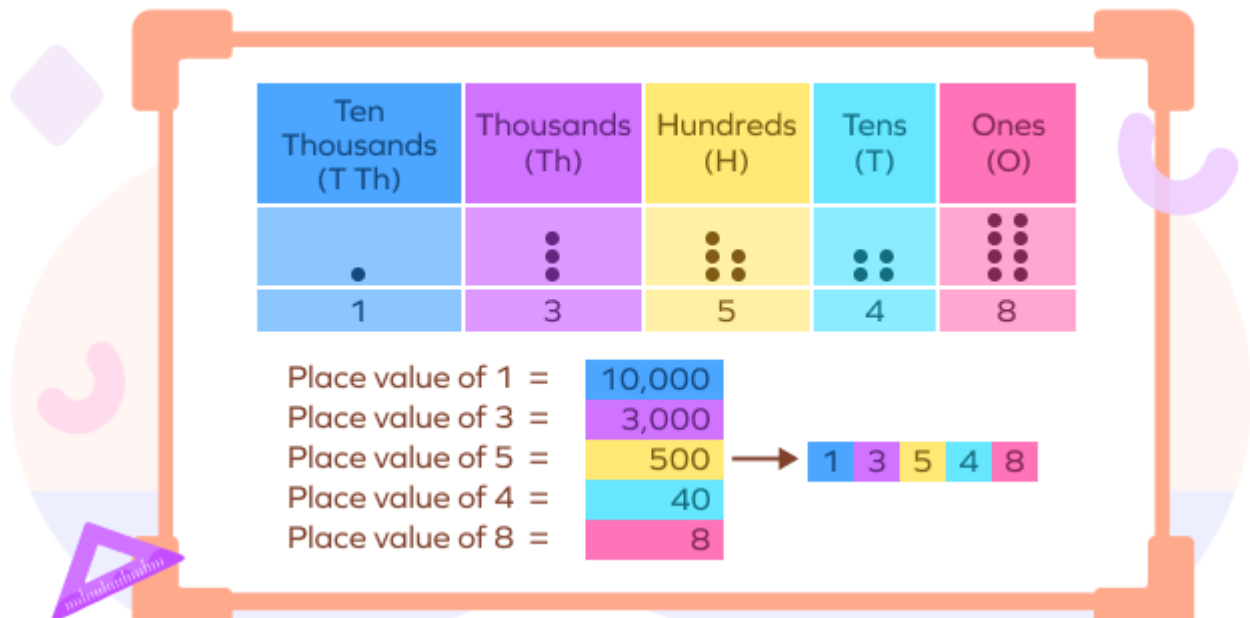
It is first 5-digit number. It can
be written in place value chart
as:

Ten Thousand T.Th	Thousand Th	Hundreds H	Tens T	Ones O

Date: _____

Day: _____

Place value of 5-digit numbers.



Write the value of 5 and 8

Ten Thousand T.Th	Thousand Th	Hundreds H	Tens T	Ones O
5	9	8	7	4
50 000	9 000	800	70	4
Value of 5 = Value of 8 =				

Activity #9: Special Number

The special number is

60,812

The value of the digit 2 is _____.

The value of the digit 1 is _____.

The value of the digit 8 is _____.

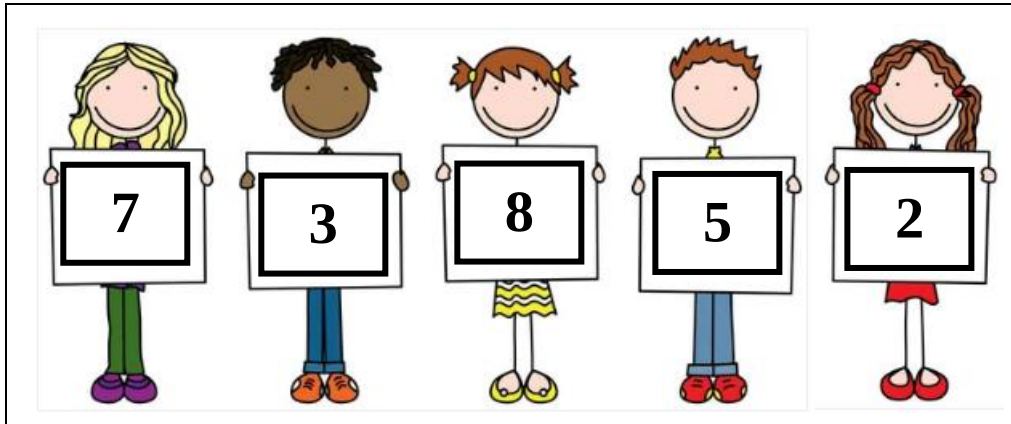
The value of the digit 0 is _____.

The value of the digit 6 is _____.

Date: _____

Day: _____

Activity #10 Write the value of all digits.



--	--	--	--	--	--

Activity #11 Make three smaller numbers by replacing the place of digits in the given numbers.



Activity #12 which one digit is at the ten thousand place in the number 783,425?

Activity #13 Read and write 9 231 in words.

Thousand Th	Hundreds H	Tens T	Ones O

In words:

Date: _____

Day: _____

Activity #14 Write forty - two thousand eight hundred and sixty-eight in numerals.

In Numerals:

Exercise 3



1. Write the following in words:

5 342	_____
8 0321	_____
9 899	_____
2569	_____

2. Write the following numbers in numerals:

(a) Six thousand three hundred and sixty-three

(b) Forty-one thousand nine hundred and ninety-nine

(c) Sixty-four thousand and thirty-three

(d) Three thousand four hundred seventy - two.

(c) Thirty - seven thousand three hundred and forty - three

Date: _____

Day: _____

3. Fill in the blanks.

2 347 =		Thousands +		Hundreds +		Tens +		ones
6 780 =		Thousands +		Hundreds +		Tens +		ones

53 406 =		Ten + Thousands		Thousands +		Hundreds +		Tens +		Ones
92 341 =		Ten + Thousands		Thousands +		Hundreds +		Tens +		Ones

4. Write the place value of digits in the following numbers:

	Ten Thousands T.Th	Thousands Th	Hundreds H	Tens T	Ones O
82 301					
67 815					
75 389					

5. Write the place value of encircled digits in the following numbers:

4 5 6 7	_____	7 0 4 3 1	_____
9 3 2 6 7	_____	5 3 2 7	_____
6 8 0 3 7	_____	5 4 1 3 6	_____

Date: _____

Day: _____



Unit # 1: Whole Numbers

Topic: Number Line

A straight line on which numbers are represented at equal intervals is called number line and as usually represent horizontally.

Example:



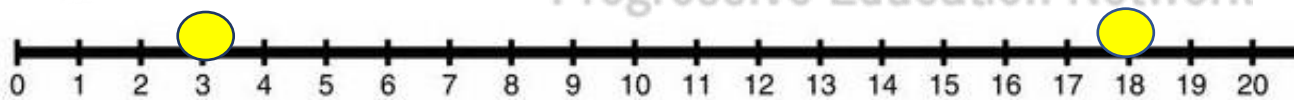
Represent 9, 11, 12 and 14 on the number line.



Activity #15

Identify the marked numbers given on the number line.

3 and 18



Activity #16

Identify the number which is between 7 and 9.



Date: _____

Day: _____

Exercise 4



1. Represent the following numbers on the number line:

(i) 6, 12, 24, 36



(ii) 0, 15, 30, 60



(iii) 3, 6, 9, 12, 15

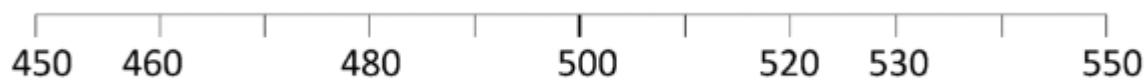


2. Place the correct number on the number line.

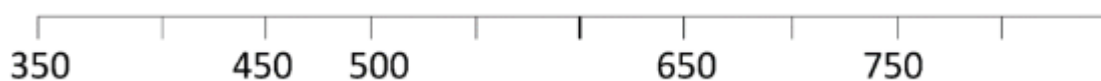
43, 73 and 113



470, 490, 510 and 540

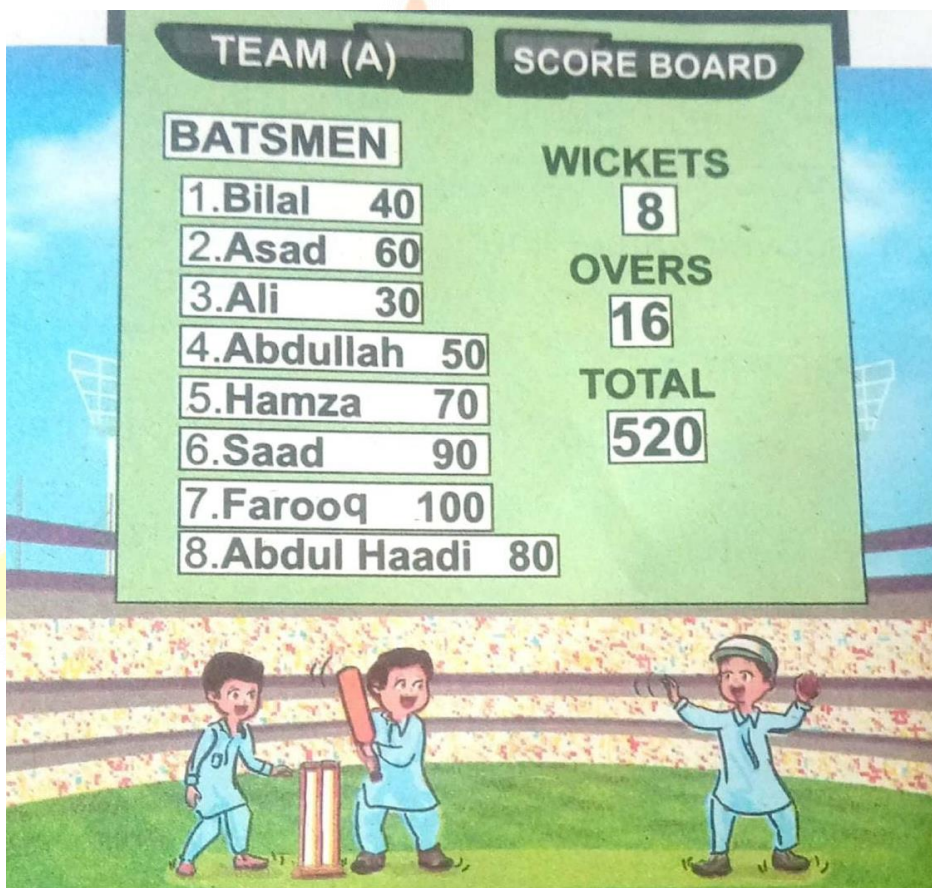


400, 550, 600, 700, 800 and 850



Comparing and Ordering Numbers

In a cricket Match, different players score Different runs as shown. What is the highest score?



How would we find the highest and the lowest score?



Date: _____

Day: _____

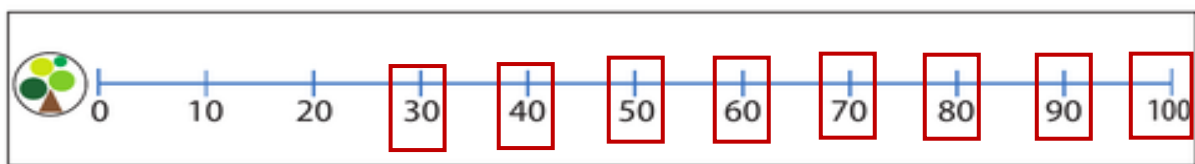
On a number line:

Numbers increase as we move from left to right.

Each number is greater than the number on the left.

It is easy to know which number is bigger or smaller.

Put the card of runs on the number line and identify the highest and the lowest score.



According to above number line:

Highest score = 100

Lowest score = 30

Activity #17

Comparing numbers

Greater than $>$

Less than $<$

Equal to $=$

$6 \square 10$

$8 \square 8$

$2 \square 4$

$7 \square 4$

$10 \square 8$

$3 \square 8$

$3 \square 3$

$9 \square 1$

$7 \square 5$

$6 \square 2$

So,	100	$>$	70	100 is greater than 70
	70	$=$	70	70 is equal to 70
and	70	$>$	20	70 is greater than 20
	20	$<$	30	20 is less than 30

Key Fact

Use these symbols while comparing numbers:

$=$ Equal to, $>$ Greater than, $<$ Less than

How to learn and understand comparison of numbers?

Rules for Comparison of Numbers:

Rule 1

We know that a number with more digits is always greater than the number with a smaller number of digits.

Rule 2

When the two numbers have the same number of digits, we start comparing the digits from left most place until we come across unequal digits.

Compare 567 and 582

Hundreds	Tens	Ones
5	6	7
5	8	2

First, we compare the digits at hundreds place:

- The digit 5 at the hundreds place is same for both numbers.

Compare the digits at tens place:

- Digit 8 at the tens place is greater than digit 6 at the tens place. Therefore, 582 is greater than 567. It can be written as:

582 ___ 567

Compare 892 and 895.

892 ___ 895

Compare 523 and 425.

523 ___ 425

Compare 892 and 895.

762 ___ 762

Ordering Numbers

Build towers from number blocks keeping in mind the order of the numbers.



Arrangement of numbers from the smallest to the greatest is called ascending order.
The blocks in this tower are arranged in ascending order.

Arrangement of numbers from the greatest to the smallest is called descending order.
The blocks are arranged in descending order.



Activity #18

Write 25, 45, 10 and 32 in ascending order.

Arrange the above numbers from the smallest value to the greatest value.

Date: _____

Day: _____

Activity #19: Write 279, 281, 265, and 273 in ascending and descending order.

Descending Order

Ascending Order

Exercise 5



1. Use symbols “<”, “>” and “=” in the given boxes.

(i) 873

426

(ii) 694

706

(iii) 857

857

(iv) 973

824

(v) 574

574

(vi) 817

619

(vii) 476

335

(viii) 346

731

2. Write the given numbers in ascending and descending orders.

(i) 71, 51, 91, 61

Ascending order:

Descending order:

Date: _____

Day: _____

(ii) 698, 278, 543, 231

Ascending order:

Descending order:

(iii) 476, 335, 345, 472

Ascending order:

Descending order:

3. Make five numbers less than 450 and write them in ascending and descending order.

Ascending order:

Descending order:

4. Encircle the greater number.

i	671 , 546	ii	248 , 249
iii	374 , 347	iv	738 , 659
v	937 , 936	vi	875 , 877

Estimation

Most of the time, estimation in math is done by rounding off the numbers to their closest whole value to get a quick and simple rough answer. It saves time and effort.

Round off the whole number to the nearest 10.

Let us take a number 74

This number lies between 70 and 80. To round off this number, either we take it back to 70 or move it forward to 80. **How do we decide where to go?**

Look at the number line below –



The numbers that lie in the red areas will be rounded down to 70. Similarly, the numbers that lie in the blue areas will be rounded up to 80. This is because the numbers that lie in red areas, i.e., the numbers between 71 and 74 are closer to 70 as compared to 80. Hence, they will be rounded down.

However, the numbers that lie between 75 and 79 are closer to 80 due to which they would be rounded up to 80. It can be written as $79 \approx 80$

For 0 , 1 , 2 , 3 , or 4 we round down.

For 5 , 6 , 7 , 8 , or 9 we round up.

Date: _____

Day: _____

Round off the whole number to the nearest 100.

To round a number to the nearest 100, look at the tens digit. If the tens digit is **5 or more**, round **up**. If the tens digit is **4 or less**, round **down**.

To round off 666 to the nearest 100.

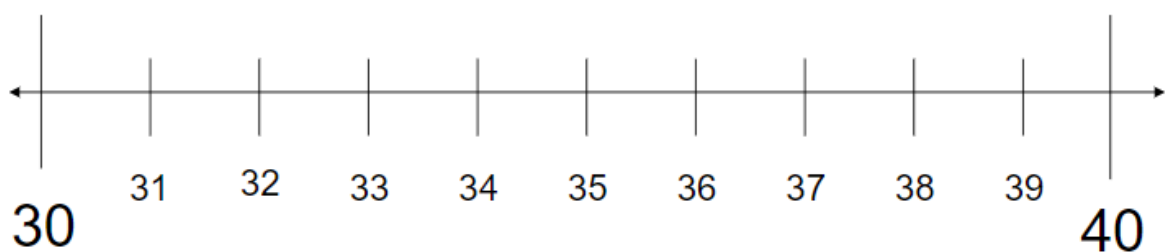
We get 700

- The tens digit in 3281 is 8. So we round it up to 3300.
- The tens digit of 3216 is 1. So we round it down to 3200.

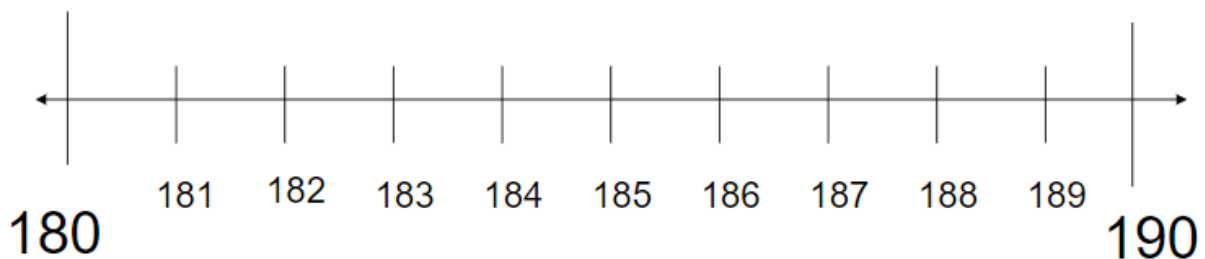
Activity #20: Round off the following number to the 10 and 100.

Numbers	To the nearest 10	To the nearest 100
37		
55		
200		
345		
653		

Activity #21: Round off 37 to the nearest 10....



Activity #22: Round off 186 to the nearest 10....



Date: _____

Day: _____

Exercise 6



1. Round off the following numbers to the nearest 10 and 100.

Numbers	To the nearest 10	To the nearest 100
28		
65		
456		
726		
850		

2. Match the following numbers with correct value after rounding off:

(i) To the nearest 10	(ii) to the nearest 100
-----------------------	-------------------------

19	40	101	400
32	50	256	800
41	80	384	100
52	100	517	900
61	20	649	300
76	30	789	500
95	60	850	600

Date: _____

Day: _____

Activity #23: Round off 26 to the nearest 10 on the number line.

Ans: _____

Activity #24: Round off 735 to the nearest 100 on the number line.

Ans: _____

Knowledge Bank

Even

Odd

Place Value

Number Line

Comparing

Estimation

Descending Order

Ascending Order

Round Off

Network

Important Note

Solve the review exercise given in the textbook by yourself.

Unit 2**Learning Outcomes**

After Completing this unit, you will be able to:

- Add Numbers up to 4-digit with and without carrying.
- Add numbers up to 100 using mental strategies
- Solve real life number stories up to 4-digit with and without carrying involving addition
- Subtraction numbers up to 4-digit with and without borrowing
- Subtract numbers up to 100 using mental strategies
- Solve real life number stories up to 4-digit with and without borrowing involving subtraction
- Develop multiplication tables for 6, 7, 8, and 9
- Multiply 2-digit number by 1-digit number
- Multiply a number by 0 and 1
- Apply mental strategies to multiply 1-digit number to 1-digit number
- Solve real life situations involving multiplication of 2-digit number by 1-digit number
- Divide 2-digit number by a 1-digit number (with zero number)
- Apply mental strategies to divide 1-digit number by a 1-digit number
- Solve real life situations involving division of 2-digit number by a 1-digit number

Date: _____

Day: _____

Activity #1. Addition up to 4-digit number without carrying

There are 3 516 mango trees and 2 322 guava trees in an orchard. What is the total number of trees?

To find the total number of trees, we add them

	Th	H	T	O
Number of mango trees	3	5	1	6
Number of guava trees	+ 2	3	2	2
Total number of trees	= 5	8	3	8

Step 1

Add ones.

$$6 \text{ ones} + 2 \text{ ones} = 8 \text{ ones}$$

Step 3

Add hundreds.

$$5 \text{ hundreds} + 3 \text{ hundreds} = 8 \text{ hundreds}$$

So, total number of trees is 5 838.

Step 2

Add tens.

$$1 \text{ tens} + 2 \text{ tens} = 3 \text{ tens}$$

Step 4

Add thousands.

$$3 \text{ thousands} + 2 \text{ thousands} = 5 \text{ thousands}$$

Date: _____

Day: _____

Activity #2. Addition up to 4-digit number with carrying

Step I: Add the ones. $6 + 5 = 11$ ones = 1 ten and 1 one. Write 1 in ones column and carry 1 to the tens column.

Step II: Add the tens. $9 + 2 + 1$ (carry over) = 12 tens. 12 tens = 1 hundreds and 2 tens. Write 2 in tens column and carry 1 to the hundreds column.

Step III: Add the hundreds. $1 + 0 + 1$ (carry over) = 2 hundreds. Write 2 in the hundreds column.

Step IV: Add the thousands. $6 + 3 = 9$ thousands. Write 9 in the thousands column

	Th	H	T	O
	6	1	9	6
+	3	0	2	5
	9	2	2	1

Add numbers up to 100 using mental strategies**Activity #3:**

Addition Tricks



Law of Addition says that any number added to zero is equal to itself. For example: $3 + 0 = 3$

Example 1. Add in parts $40 + 55$.

First break 55 into its tens and ones. 55 is $50 + 5$.

So, $40 + 55$ becomes $40 + 50 + 5$.

Now add 40 and 50. You get 90. Then add the 5. You get $90 + 5 = \underline{\quad}$.

How can you easily add $16 + 19$?

Think about it before you go on!

Here's the answer: again, add *in parts*. Look at the example on the right.

$$16 + 19$$

$$= 6 + 9 + 10 + 10$$

$$= 15 + 10 + 10 = \underline{\quad}$$

Date: _____

Day: _____

Exercise 1



1. Solve the following:

(i)

	6	6	4	3
+	3	2	1	5

(ii)

	7	1	3	8
+	2	2	1	1

(iii)

	4	6	5	3
+	3	3	2	5

(iv)

	5	3	1	4
+	4	0	0	0

(v)

	6	5	9	4
+	2	4	0	4

(vi)

	7	0	4	0
+	1	2	1	5

2. Add the following numbers:

5 7 9 4 , 3 8 2 5

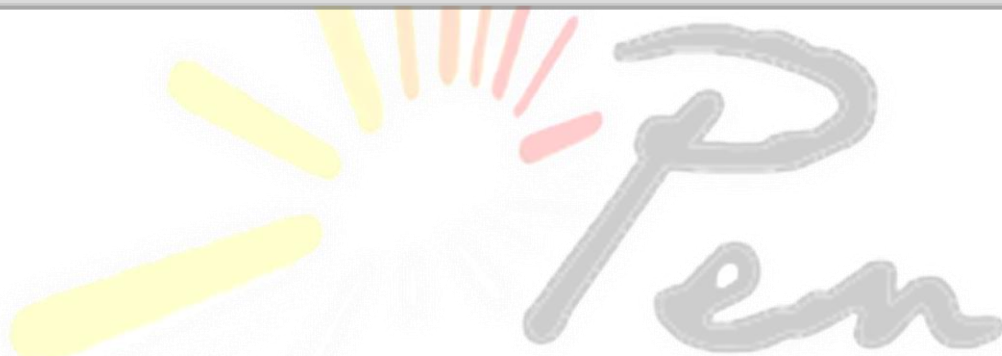
Date: _____

Day: _____

6 2 4 3 , 5 7 2 7

4 7 5 2 , 3 5 9 6

3. There are 3 454 orange trees and 2 345 guava trees in an orchard. Find the total number of trees.



Progressive Education Network

4. There are 6 540 male and 2 120 female employees in an organization. Find the total number of employees.

Date: _____

Day: _____

5. Add using mental strategies:

$15 + 16 = \boxed{}$

$52 + 18 = \boxed{}$

$47 + 32 = \boxed{}$

$56 + 24 = \boxed{}$

$35 + 55 = \boxed{}$

$42 + 15 = \boxed{}$

Subtraction of numbers up to 4-digits without borrowing

Activity #4: Add 6 589 and 3 248.

Step I: Arrange the numbers vertically.

Step II: Subtract ones. $9 - 8 = 1$ one. Write 1 in ones column.

Step III: Subtract the tens. $8 - 4 = 4$ tens. Write 4 in tens column.

Step IV: Subtract the hundreds. $5 - 2 = 3$ hundreds. Write 3 in hundreds column.

Step V: Subtract the thousands. $6 - 3 = 3$ thousands. Write 3 in thousands column.

Th	H	T	O
6	5	8	9
- 3	2	4	8
3	3	4	1

Thus, $6589 - 3248 = 3341$.

Date: _____

Day: _____

Activity #5: 1 982 people offered their Eid namaz in a masjid. 1 670 of the totals were men. Find out the number of children.

Number of people =

Number of men =

Number of children =

Th	H	T	O
1	9	8	2
1	6	7	0

Thus, the number of children were _____

Key Fact

Always subtract a smaller number from a greater number.

Subtraction of numbers with borrowing

Subtract 3958 from 7461.

Th	H	T	O
6 7	14 4	5 6	11 1
- 3	9	5	8
3	5	0	3

Key Facts

If 0 is subtracted from any number, we get the same number.

Activity #6: Find the difference between 7 650 and 2 586.

Th	H	T	O
-			

Solution:**Step I:** Arrange the numbers vertically.**Step II:** Subtract the ones. Since $8 > 1$, we cannot subtract 8 from 1.Regroup 6 tens and 1 one. Now, 6 tens + 1 one = 5 tens and 11 ones. $11 - 8 = 3$ ones. Write 3 in ones column.**Step III:** Subtract the tens. 5 tens – 5 tens = 0 tens. Write 0 in tens column.**Step IV:** Subtract the hundreds. Since $9 > 4$, we cannot subtract 9 from 4. Regroup 7 thousands and 4 hundreds as 6 thousands and 14 hundreds. $14 - 9 = 5$ hundreds. Write 5 in hundreds column.**Step V:** Subtract the thousands. $6 - 3 = 3$ thousands. Write 3 in thousands column.**✚ Subtract 4285 from 7658**

First, we arrange the minuend and the subtrahend as shown below.

	Th	H	T	O
		5	15	
	7	6	5	8
-	4	2	8	5
	3	3	7	3

Step 1. Subtract the ones.

$$8 \text{ ones} - 5 \text{ ones} = 3 \text{ ones}$$

Write 3 in the ones column.

Step 2. Subtract the tens.

8 tens cannot be subtracted from 5 tens, so, borrow 1 hundred from 6 hundreds leaving behind 5 hundreds.

$$\text{We have, } 1 \text{ hundred} + 5 \text{ tens}$$

$$= 10 \text{ tens} + 5 \text{ tens} = 15 \text{ tens}$$

$$15 \text{ tens} - 8 \text{ tens} = 7 \text{ tens}$$

Write 7 in the tens column.

Step 3. Subtract the hundreds.

$$5 \text{ hundreds} - 2 \text{ hundreds} = 3 \text{ hundreds}$$

Write 3 in the hundreds column.

Step 4. Subtract the thousands.

$$7 \text{ thousands} - 4 \text{ thousands} = 3 \text{ thousands}$$

Write 3 in the thousands column.

Difference = 3 373**Key Facts**

1 hundred = 10 tens

Subtraction of numbers up to 100 using mental strategies

Solve: $76 - 35 = ?$

Method: Imagine 76 and 35 are one below other.

$$\begin{array}{r} 76 \\ - 35 \\ \hline 1 \end{array}$$

Subtract

Ones place digits

$$\begin{array}{r} 76 \\ - 35 \\ \hline 41 \end{array}$$

Subtract

Tens place digits

Step 1: In the above example, we hold the number 35 below the number 76 in mind.

Step 2: Then first we subtract the ones place digits: $6 - 5 = 1$.
This is our ones place digit in the answer.

Step 3: After that we subtract the tens place digits: $7 - 3 = 4$.
This is our tens place digit in the answer.

So, the answer is:

$$76 - 35 = 41$$

Solve: $56 - 35 = ?$

Method: Break 35 into Tens and Ones.

$$\begin{aligned} & 56 - 35 \\ & \downarrow \quad \downarrow \\ & = 56 - (30 + 5) \\ & = 56 - 30 - 5 \\ & = \underbrace{26} - 5 \\ & = 21 \end{aligned}$$

Teaching Point

Teacher should explain the concept of mental subtraction to students and given some questions for practicing.

Date: _____

Day: _____

Exercise 2



i. Solve the following.

3	5	4	6
- 2	3	2	4

5	7	9	6
- 3	4	5	3

6	3	5	4
- 4	0	4	1

9	7	6	5
- 8	9	7	4

6	4	9	5
- 3	5	4	6

8	6	7	8
- 3	5	4	6

7	9	6	5
- 6	8	7	6

4	7	5	4
- 3	9	7	4

7	9	6	5
- 6	8	7	6

ii. Subtract mentally.

$80 - 24 =$

$57 - 31 =$

$97 - 36 =$

$67 - 45 =$

$87 - 26 =$

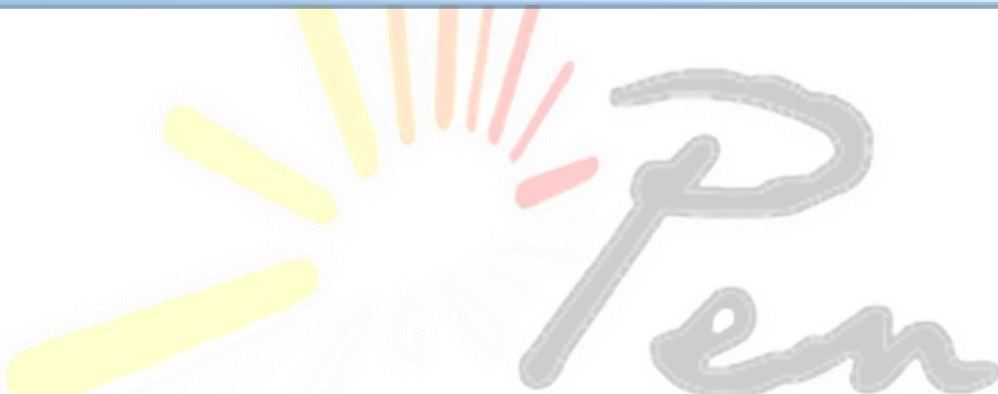
$58 - 34 =$

Date: _____

Day: _____

iii. A book has 1535 pages in all. Zarina has read 424 pages.
How many pages are left to read?

iv. Amir and Gulraiz are cloth merchants. If Aamir's sale of one day Rs 6456 and Gulraiz's sale of one day is Rs 4340. Then find how much money Aamir has than Gulraiz?



v. In a cattle farm, number of goats and sheep is 7516. If number of sheep is 5623 then find the number of goats.

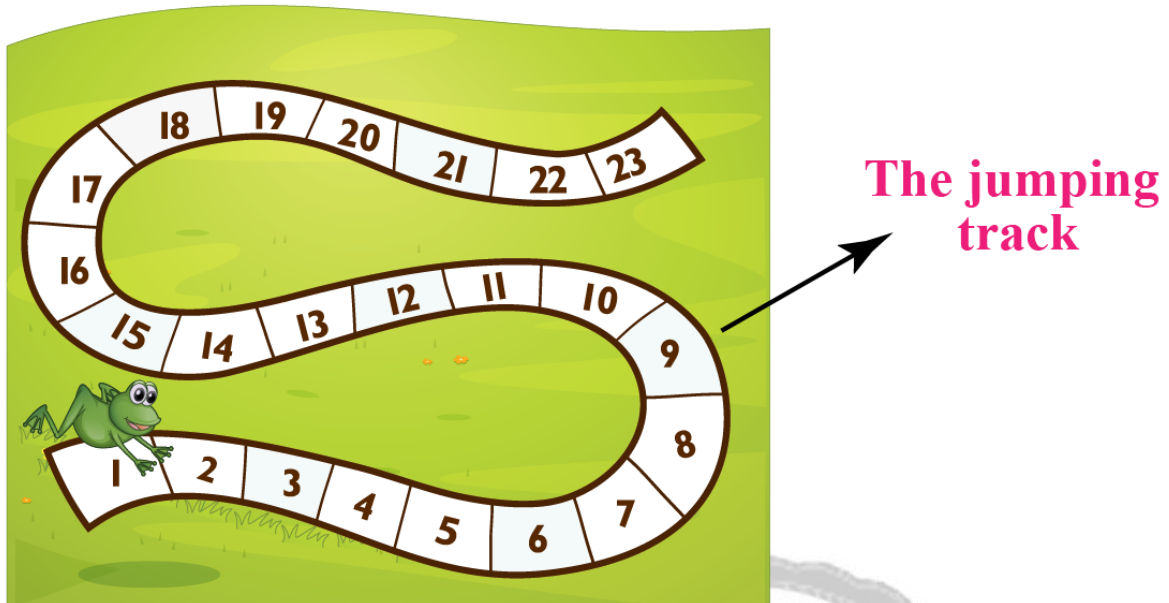
Date: _____

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Activity #8

A frog has to jump on every third tile without stepping on any number in between.

It starts jumping from the number 3



Can you list the tiles that he jumps on?

Ans: _____

Multiplication Table of 6



Date: _____

Day: _____

Multiplication**Table of 8****Activity #7:**

Madiha has 3 chocolates in each box.

There are 8 boxes. What is the total number of chocolates?

Chocolates in 1 box	=	8
Chocolates in 3 boxes	=	$8+8+8=24$
Chocolates in 3 boxes	=	$3 \times 8 = 24$
Thus, there are 24 chocolates in 3 boxes.		

We can get table of 8 by adding 8 repeatedly.

1	×	8	=	8
2	×	8	=	16
3	×	8	=	24
4	×	8	=	32
5	×	8	=	40
6	×	8	=	48
7	×	8	=	56
8	×	8	=	64
9	×	8	=	72
10	×	8	=	80

Key Facts

$$3 \times 8 = 24$$

Or

$$3 \times 8 = 8 \times 3 = 24$$

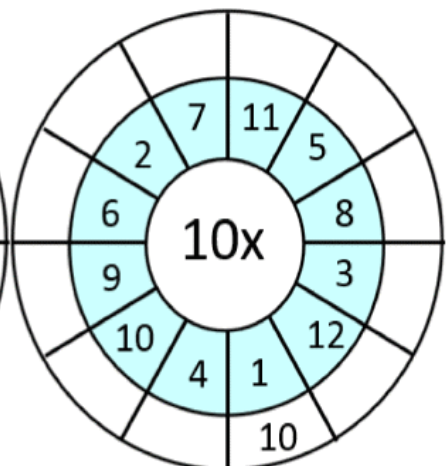
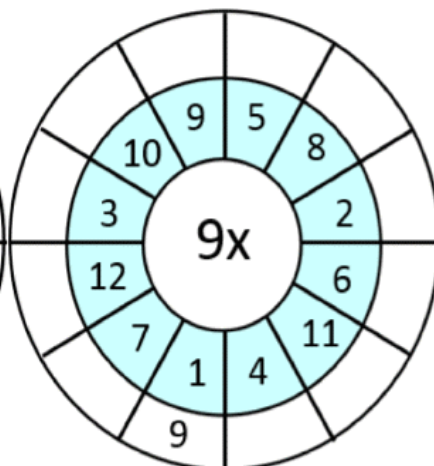
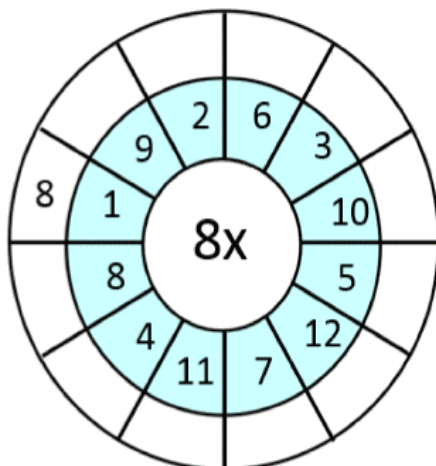
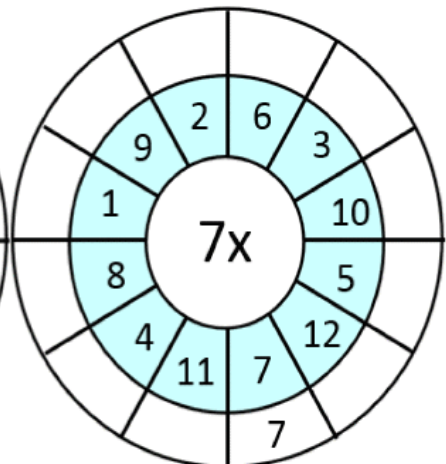
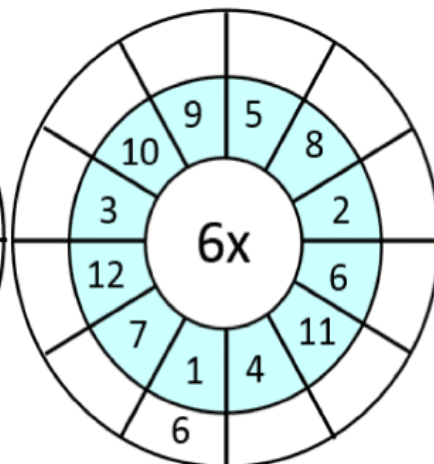
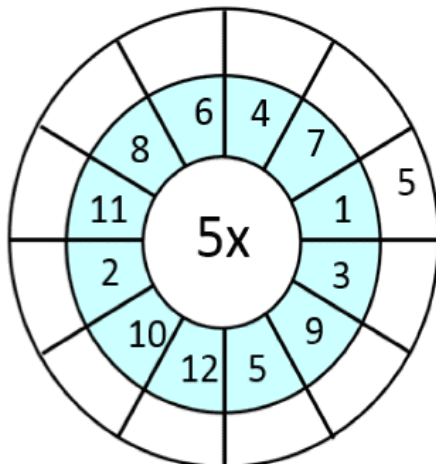
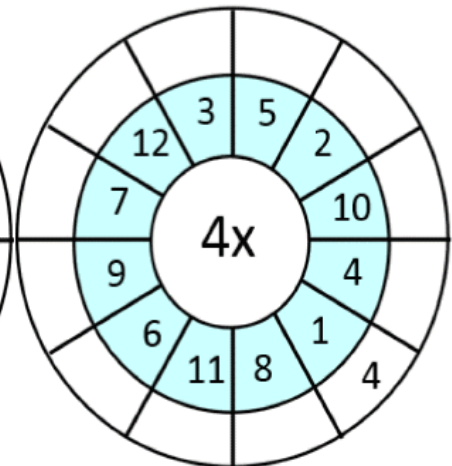
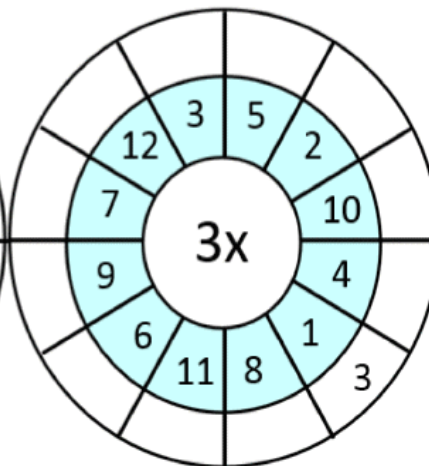
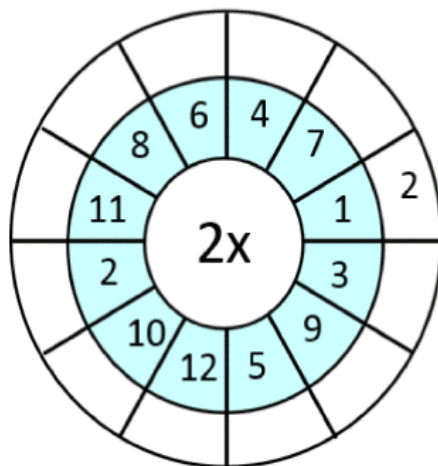
Date: _____

Day: _____

Exercise 3



1. Complete the following tables:



2.Fill in the boxes.

×	1	2	3	4	5	6	7	8	9	10
4	4				20				36	
5		10				30				50
6			18				42			
7				28				56		

Multiply 2-digit number by 1-digit number

Example: Multiply 34 and 2

Solution:

Step I: Arrange the numbers vertically.

Step II: First multiply the digit at the ones place by 2.

$$2 \times 4 = 8 \text{ ones}$$

Step III: Now multiply the digit at the tens place by 2.

$$2 \times 3 = 6 \text{ tens}$$

Multiplying 2-Digit Number by 1-Digit Number

T	O
3	4
×	2
6	8

Date: _____

Day: _____

Example: Multiply 46 by 4

Solution:

Step I: Arrange the numbers vertically.

Step II: Multiply the digit at the ones place by 4.

$$6 \times 4 = 24 = 2 \text{ tens} + 4 \text{ ones}$$

Write 4 in the ones column and carry over 2 to the tens column

Step III: Now multiply the digit at the tens place by 4.

$$4 \times 4 = 16 \text{ tens}$$

Now, $16 + 2$ (carry over) = 18 tens = 1 hundred + 8 tens

Write 8 at the tens place and 1 at the hundred place.

$$\text{Thus, } 46 \times 4 = 184$$

Multiplying 2-Digit Number by 1-Digit Number

	T	O
2	4	6
	×	4
	1 8	4

Multiply a number by 0 and 1

When we multiply by zero, the answer is ... **zero**.

Example: $12 \times 0 = 0$

Also, when the zero is in the front of the multiplication:

Example: $0 \times 5 = 0$

Activity #9:

Find each product using above multiplication table of 0.

5	10	8	3	7
$\times 0$	$\times 0$	$\times 0$	$\times 0$	$\times 0$

Date: _____

Day: _____

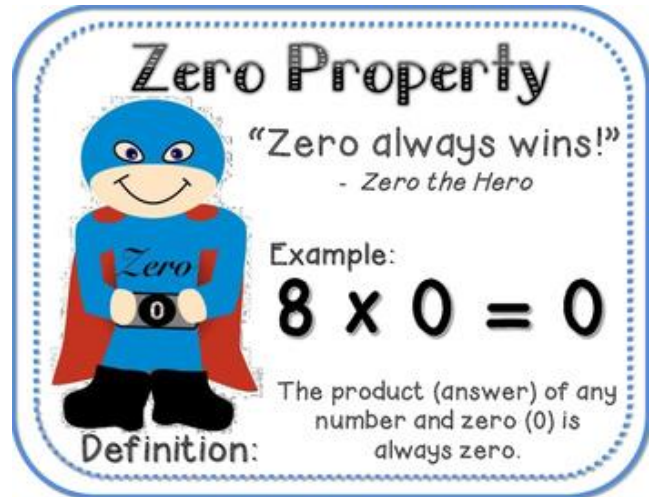
The rule for multiplying any number by 1 is that the number remains the same size. When multiplying a given number by one, the answer is simply the given number.

Examples:

$5 \times 1 = 5$

$9 \times 1 = 9$

$7 \times 1 = 7$



Activity #10: Apply mental strategies to multiply 1-digit number by 1-digit number

① $2 \times 5 =$ _____

② $1 \times 0 =$ _____

③ $4 \times 4 =$ _____

④ $6 \times 7 =$ _____

⑤ $7 \times 3 =$ _____

⑥ $9 \times 2 =$ _____

⑦ $9 \times 1 =$ _____

⑧ $8 \times 6 =$ _____

⑨ $4 \times 7 =$ _____

⑩ $3 \times 9 =$ _____

⑪ $5 \times 8 =$ _____

⑫ $6 \times 6 =$ _____

⑬ $5 \times 6 =$ _____

⑭ $8 \times 3 =$ _____

⑮ $9 \times 7 =$ _____

⑯ $2 \times 8 =$ _____

⑰ $5 \times 5 =$ _____

⑱ $9 \times 6 =$ _____

Date: _____

Day: _____

Exercise 4



1. Solve the following:

2	4
×	3

3	5
×	4

3	2
×	5

3	8
×	6

4	5
×	7

4	8
×	8

5	4
×	9

5	6
×	7

6	2
×	6

2. Solve the following by using tables.

$7 \times 6 =$

$9 \times 7 =$

$8 \times 9 =$

$4 \times 8 =$

Date: _____

Day: _____

3. If Habib spends Rs 24 in one day, then how many rupees will he spend in 4 days?

4. There are 7 days in a week. How many days are there in 52 weeks?

5. If there are 28 trees in one row, then how many trees are there in 5 such rows?

Date: _____

Day: _____

Divide 2-digit number by 1-digit number with zero remainder

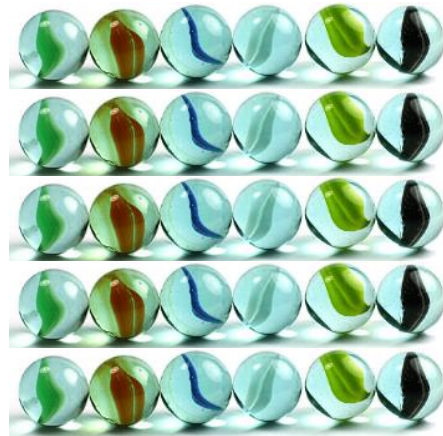
Ali has 30 Marbles and I want to place them in 6 jars equally.
How many marbles can be placed in each jar?

Dividing by 6, we get 5.

Total Number of marbles = 30

Number of jars = 6

Number of marbles in one jar = $30 \div 6$
= 5



Key Facts

Division means to distribute the things equally.

$$\begin{array}{r} 5 \leftarrow \text{Quotient} \\ \text{Divisor} \rightarrow 6 \overline{) 30} \leftarrow \text{Dividend} \\ \underline{-30} \\ 00 \leftarrow \text{Remainder} \end{array}$$

Thus, 5 marbles can be placed in each jar.

Key Facts

Division means to distribute the things equally.

Date: _____

Day: _____

There are various signs that can be used to indicate division, such as

For example:

$\div$	$27 \div 3$
$/$	$27/3$
$\overline{)}$	$3\overline{)27}$

Key Facts

When 2-digit number is divided by 1-digit number, we divide the number at tens place first and then the number at ones place.

Activity #11:

$2\overline{)58}$	$3\overline{)78}$	$4\overline{)60}$
$4\overline{)72}$	$2\overline{)94}$	$3\overline{)81}$
$3\overline{)69}$	$4\overline{)92}$	$2\overline{)72}$

Date: _____

Day: _____

Exercise 5



1. Solve the following:

$20 \div 4 = \square$

$81 \div 9 = \square$

$96 \div 8 = \square$

$99 \div 9 = \square$

$48 \div 4 = \square$

$51 \div 3 = \square$

$72 \div 6 = \square$

$84 \div 7 = \square$

2. Solve by using mental strategies:

$4 \div 2 = \square$

$8 \div 4 = \square$

$9 \div 3 = \square$

$10 \div 5 = \square$

Date: _____

Day: _____

3. During school assembly, 96 students are standing in 6 rows. How many students are there in one row?



4. A man covered 556 km in 4 days, then how much will be covered in one day?

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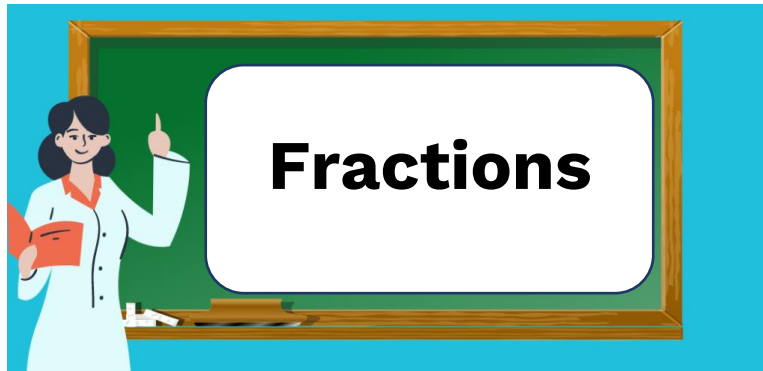
5. If the price of 1 pencil is Rs 8. How many pencils can be bought in Rs 48?

Knowledge Bank

- Addition
- Subtraction
- Borrowing
- Multiplication
- Repeatedly
- Division
- Divisor
- Quotient
- Dividend
- Remainder
- Mental strategies
- Box

Important Note

Solve the review exercise given in the textbook by yourself.

Unit 3**Learning Outcomes**

After Completing this unit, you will be able to:

- Express the fractions in figures and vice versa
- Match the fractions with related figures
- Recognize proper and improper fractions
- Differentiate between proper and improper fractions
- Identify equivalent fractions from the given figures
- Write three equivalent fractions for a given fraction
- Compare fractions with same denominators using symbols “<”, “>” or “=”
- Add two fractions with same denominators
- Represent addition of fractions through figures
- Subtract fractions with same denominators
- Represent subtraction of fractions through figures

What are fractions?

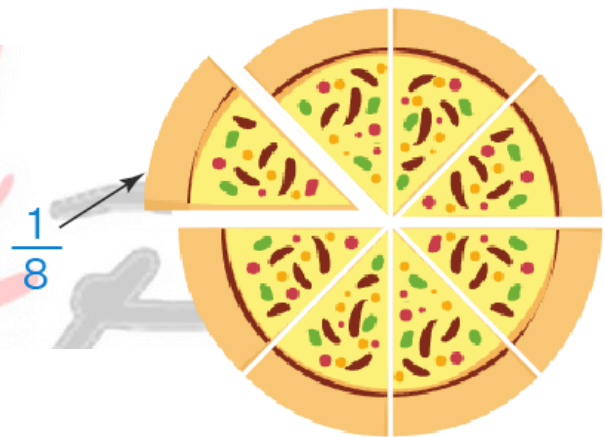
Fractions are a number that represents part of a whole.

Fractions, in Mathematics, are represented as a numerical value, which defines a part of a whole. A fraction can be a portion or section of any quantity out of a whole, where the whole can be any number, a specific value, or a thing. Let us understand this concept using an example. The following figure shows a pizza that is divided into 8 equal parts. Now, if we want to express one selected part of the pizza, we can express it as $\frac{1}{8}$ which shows that out of 8 equal parts, we are referring to 1 part.

It means one in eight equal parts. It can also be read as:

- One-eighth, or
- 1 by 8

If we select **2 parts** of the pizza, it will be expressed as **$\frac{2}{8}$** . Similarly, if we are referring to **6 parts** of this pizza, we would write it as **$\frac{6}{8}$** as a fraction.



Types of Fractions:

There are four different types of fractions. They are:

- **Unit Fraction** – In a fraction, the numerator with 1 is called a unit fraction. For example, $\frac{1}{4}$, $\frac{1}{9}$
- **Proper Fraction** – If a numerator value is less than the denominator value, it is called a proper fraction. Example: $\frac{7}{9}$, $\frac{8}{10}$
- **Improper Fraction** – If a numerator value is greater than the denominator value, then it is called an improper fraction. Example: $\frac{6}{5}$, $\frac{11}{10}$
- **Mixed Fraction** – If a fraction consists of a whole number with a proper fraction, it is called a mixed fraction. Example $5\frac{3}{4}$, $10\frac{1}{2}$

Date: _____

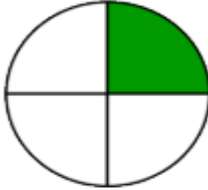
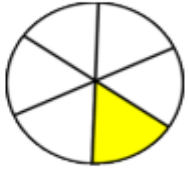
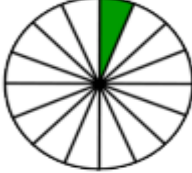
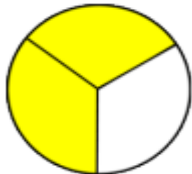
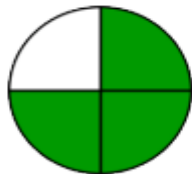
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Common Fractions

A fraction is called a common fraction if it is written as one number over another: $\frac{1}{3}$ or $\frac{3}{4}$. The number above the line is called the numerator. It describes how many parts out of the whole are being discussed. The number below the line is called the denominator. It describes the total number of parts that make up the whole. To read a common fraction, begin with the numerator.

For Example: $\frac{1}{2}$ $\frac{3}{6}$ $\frac{9}{18}$ $\frac{27}{54}$

Activity #1: What fraction of the shape is shaded? Circle the given fraction.

		
$\frac{1}{6}$ $\frac{8}{1}$ $\frac{1}{8}$	$\frac{4}{1}$ $\frac{1}{8}$ $\frac{1}{4}$	$\frac{1}{2}$ $\frac{1}{6}$ $\frac{1}{4}$
		
$\frac{1}{6}$ $\frac{6}{1}$ $\frac{1}{4}$	$\frac{1}{16}$ $\frac{1}{8}$ $\frac{16}{1}$	$\frac{3}{6}$ $\frac{3}{8}$ $\frac{3}{4}$
		
$\frac{5}{16}$ $\frac{16}{5}$ $\frac{5}{8}$	$\frac{3}{2}$ $\frac{2}{3}$ $\frac{2}{4}$	$\frac{3}{2}$ $\frac{3}{4}$ $\frac{4}{3}$
		
$\frac{5}{16}$ $\frac{8}{5}$ $\frac{5}{8}$	$\frac{7}{8}$ $\frac{7}{16}$ $\frac{16}{7}$	$\frac{8}{7}$ $\frac{7}{16}$ $\frac{7}{8}$

Date: _____

Day: _____

Exercise 1

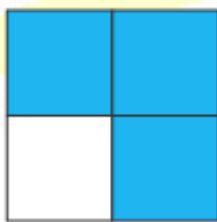


Identify numerator and denominator in the following fractions:

$\frac{2}{7}$	$\frac{3}{7}$	$\frac{5}{8}$	$\frac{2}{5}$	$\frac{10}{13}$	$\frac{1}{8}$
---------------	---------------	---------------	---------------	-----------------	---------------

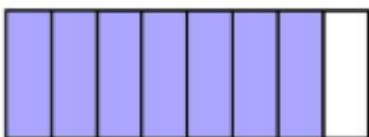
Numerator						
Denominator						

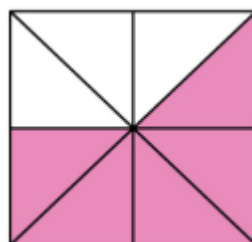
2. Write the fraction of the colored part in the given boxes:













Date: _____

Day: _____

3. Color the following figures according to the given fractions:



(i) $\frac{1}{6}$



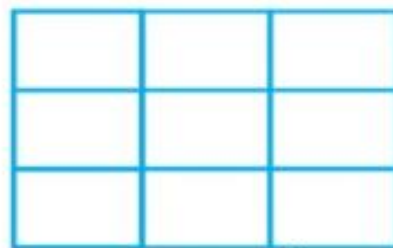
(ii) $\frac{1}{4}$



(iii) $\frac{1}{3}$



(iv) $\frac{3}{4}$



(v) $\frac{4}{9}$

4. Write the fraction from the given numerator and denominator.

Numerator = 4
Denominator = 11 $\rightarrow \frac{4}{11}$

Numerator = 3
Denominator = 11 $\rightarrow$ _____

Numerator = 4
Denominator = 9 $\rightarrow$ _____

Numerator = 5
Denominator = 7 $\rightarrow$ _____

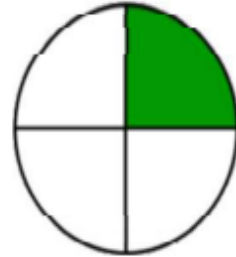
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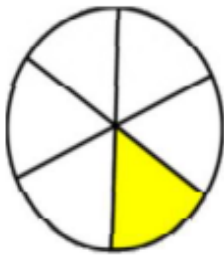
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5. Write the fraction of the shape that is filled in.

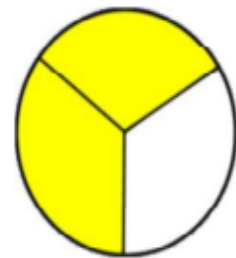


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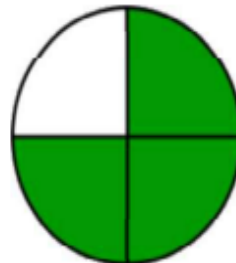


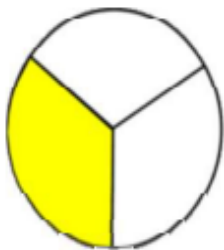


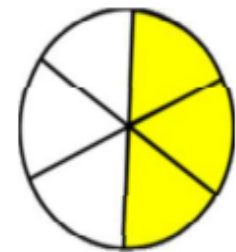
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Proper and Improper Fractions

Proper Fractions:

A fraction where the numerator is less than the denominator, then it is known as a proper fraction.

i.e., Numerator < Denominator

For example,

$$\frac{3}{5}$$

Smaller
Larger
Proper Fraction

$$\frac{2}{3} \quad \frac{3}{6} \quad \frac{5}{7} \quad \frac{16}{40}$$

Key Points

If the numerator of a fraction is smaller than the denominator, then the fraction is called proper fraction.

Improper Fraction

A fraction where the numerator is greater than the denominator, then it is known as an improper fraction.

i.e., Numerator > Denominator

For example,

$$\frac{9}{5}$$

Larger
Smaller
Improper Fraction

$$\frac{3}{2} \quad \frac{6}{3} \quad \frac{5}{5} \quad \frac{40}{16}$$

Key Points

If the numerator of a fraction is greater than or equal to the denominator, then the fraction is called improper fraction.

Date: _____

Day: _____

Exercise 2



1. Write proper or improper fractions in the following boxes:

$\frac{3}{4} =$	$\frac{4}{5} =$	$\frac{4}{3} =$
$\frac{4}{9} =$	$\frac{7}{5} =$	$\frac{9}{5} =$
$\frac{8}{9} =$	$\frac{3}{7} =$	$\frac{7}{7} =$

2. Match proper fractions with proper fractions and improper fractions with improper fractions in the following:

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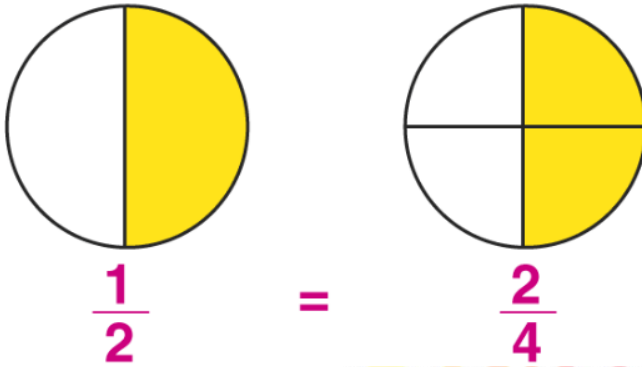
$\frac{13}{6}$	$\frac{14}{5}$	$\frac{4}{5}$	$\frac{9}{4}$
$\frac{8}{5}$	Proper Fractions	Improper Fractions	$\frac{7}{12}$
$\frac{7}{19}$	$\frac{8}{15}$	$\frac{7}{9}$	$\frac{7}{4}$

Equivalent Fractions

Equivalent Fractions:

When fractions have different numbers in them, but have the same value, they are called equivalent fractions.

Example: $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$ and $\frac{4}{8}$ all are equivalent fractions, because they all are equal to $\frac{1}{2}$.

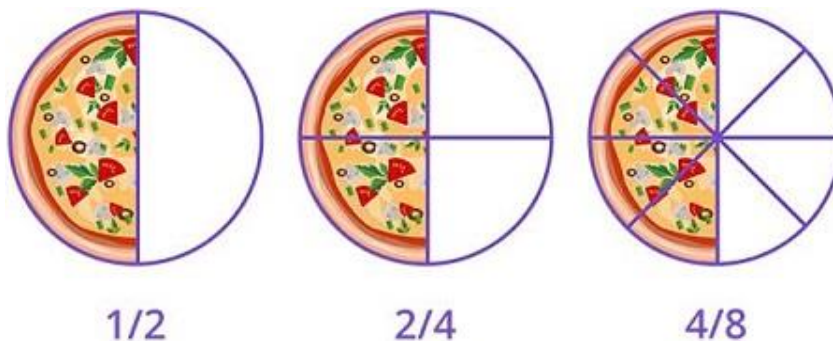


The biggest question here can be, why do they have equal values in spite of having different numbers?

The answer to this question is that, as the numerator and denominator are not co-prime numbers, therefore they have a common multiple, which on division gives exactly the same value.

Example:

Consider a pizza cut into half, another one into 4 slices and the third one cut into 8. Eating a slice from the first pizza is equivalent to eating two slices from the second and eating four slices from the third. That is, the pizza fractions calculated any of the three ways is the same.



That is, the unit fraction $\frac{1}{2}$ is equivalent to $\frac{2}{4}$, and again equivalent to $\frac{4}{8}$.

Date: _____

Day: _____

Equivalent Fractions Chart

1 WHOLE											
$\frac{1}{2}$						$\frac{1}{2}$					
$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$			$\frac{1}{4}$		
$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$		$\frac{1}{6}$	
$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$		$\frac{1}{8}$	
$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$		$\frac{1}{10}$	
$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$		$\frac{1}{12}$	

From the above chart, we can observe that the equivalent fractions of $\frac{1}{3}$ are $\frac{2}{6}$, $\frac{4}{12}$, $\frac{8}{24}$, ... Now, let us see the equivalent fractions of some unit fractions.

How to find if two Fractions are Equivalent?

How can we find whether two fractions are equivalent or not? It is possible by the following methods:

1. Make the Denominators Equal

By making the denominators of the given fractions the same, we can find whether they are equivalent or not.

2. Determining the decimal form of both fractions

By finding the decimals of the given fractions, we can check whether they are equivalent or not.

3. Cross Multiplication method

To identify whether two fractions are equivalent or not, cross multiply them. The fractions are equivalent if both the products are the same.

Unit Fraction	Equivalent fractions
$\frac{1}{2}$	$\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}, \dots$
$\frac{1}{3}$	$\frac{2}{6}, \frac{3}{9}, \frac{4}{12}, \frac{5}{15}, \dots$
$\frac{1}{4}$	$\frac{2}{8}, \frac{3}{12}, \frac{4}{16}, \frac{5}{20}, \dots$
$\frac{1}{5}$	$\frac{2}{10}, \frac{3}{15}, \frac{4}{20}, \frac{5}{25}, \dots$
$\frac{1}{6}$	$\frac{2}{12}, \frac{3}{18}, \frac{4}{24}, \frac{5}{30}, \dots$
$\frac{1}{7}$	$\frac{2}{14}, \frac{3}{21}, \frac{4}{28}, \frac{5}{35}, \dots$
$\frac{1}{8}$	$\frac{2}{16}, \frac{3}{24}, \frac{4}{32}, \frac{5}{40}, \dots$
$\frac{1}{9}$	$\frac{2}{18}, \frac{3}{27}, \frac{4}{36}, \frac{5}{45}, \dots$
$\frac{1}{10}$	$\frac{2}{20}, \frac{3}{30}, \frac{4}{40}, \frac{5}{50}, \dots$

Date: _____

Day: _____

Exercise 3



1. Match the equivalent fractions.

$$\frac{3}{5}$$

$$\frac{8}{14}$$

$$\frac{5}{9}$$

$$\frac{1}{2}$$

$$\frac{4}{7}$$

$$\frac{15}{21}$$

$$\frac{3}{6}$$

$$\frac{9}{24}$$

$$\frac{3}{8}$$

$$\frac{6}{10}$$

$$\frac{5}{7}$$

$$\frac{10}{18}$$

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2. Write three equivalent fractions of each of the following:

i) $\frac{5}{6}$

____, ____, ____

ii) $\frac{2}{3}$

____, ____, ____

iii) $\frac{1}{4}$

____, ____, ____

iv) $\frac{5}{8}$

____, ____, ____

v) $\frac{3}{5}$

____, ____, ____

vi) $\frac{2}{5}$

____, ____, ____

Comparison of fractions

In two fractions with the same denominators. A fraction having a greater numerator than another fraction is a greater fraction. While fractions with the same numerators are equal fractions.

Let's try it with $\frac{2}{4}$ and $\frac{3}{4}$. Since $2 < 3$, then $\frac{2}{4} < \frac{3}{4}$. You can look at the models to see why.



$\frac{2}{4}$

<



$\frac{3}{4}$

In both models, the whole is broken into fourths. But $\frac{2}{4}$ has only 2 parts shaded, and $\frac{3}{4}$ has 3 parts shaded. So, $\frac{2}{4}$ is less than $\frac{3}{4}$.

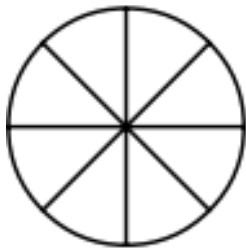
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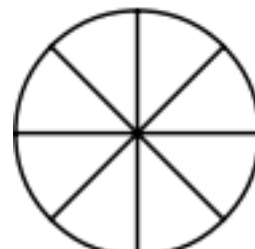
Exercise 4



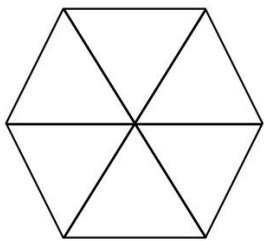
1. Colour the following figures according to fractions and then use “>” or “<” sign:



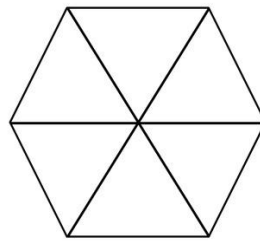
$\frac{3}{8}$



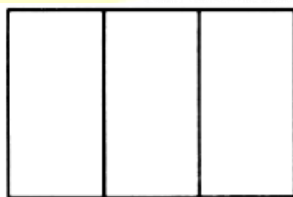
$\frac{5}{8}$



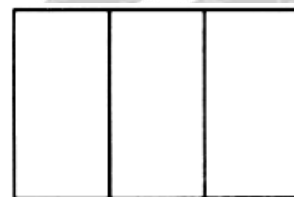
$\frac{5}{6}$



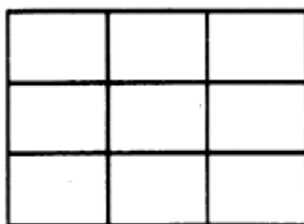
$\frac{2}{6}$



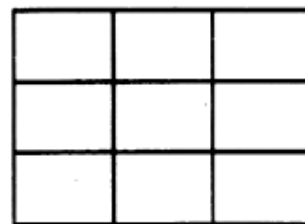
$\frac{2}{3}$



$\frac{1}{3}$



$\frac{5}{9}$



$\frac{7}{9}$

Date: _____

Day: _____

2. Use “>”, “<” and “=” in the following fractions:

$\frac{3}{9}$ $\frac{5}{9}$	$\frac{3}{5}$ $\frac{2}{5}$
$\frac{4}{7}$ $\frac{4}{7}$	$\frac{2}{3}$ $\frac{1}{3}$
$\frac{5}{11}$ $\frac{3}{11}$	$\frac{8}{9}$ $\frac{8}{9}$

Addition Fractions

To add fractions there are three simple steps:

- Step 1: Make sure the bottom numbers (the **denominators**) are the same
- Step 2: Add the top numbers (the **numerators**), put that answer over the denominator
- Step 3: Simplify the fraction (if possible)

Example:1

$$\frac{1}{4} + \frac{2}{4}$$

Key Points

To add fractions with same denominators, we add numbers only.

Step 1. The bottom numbers (the denominators) are already the same. Go straight to step 2.

Date: _____

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Step 2. Add the top numbers and put the answer over the same denominator:

$$\frac{1}{4} + \frac{2}{4} = \frac{1+2}{4} = \frac{3}{4}$$

While adding fractions, if denominators are the same (such fractions are said to be like fractions), then they can be added directly.

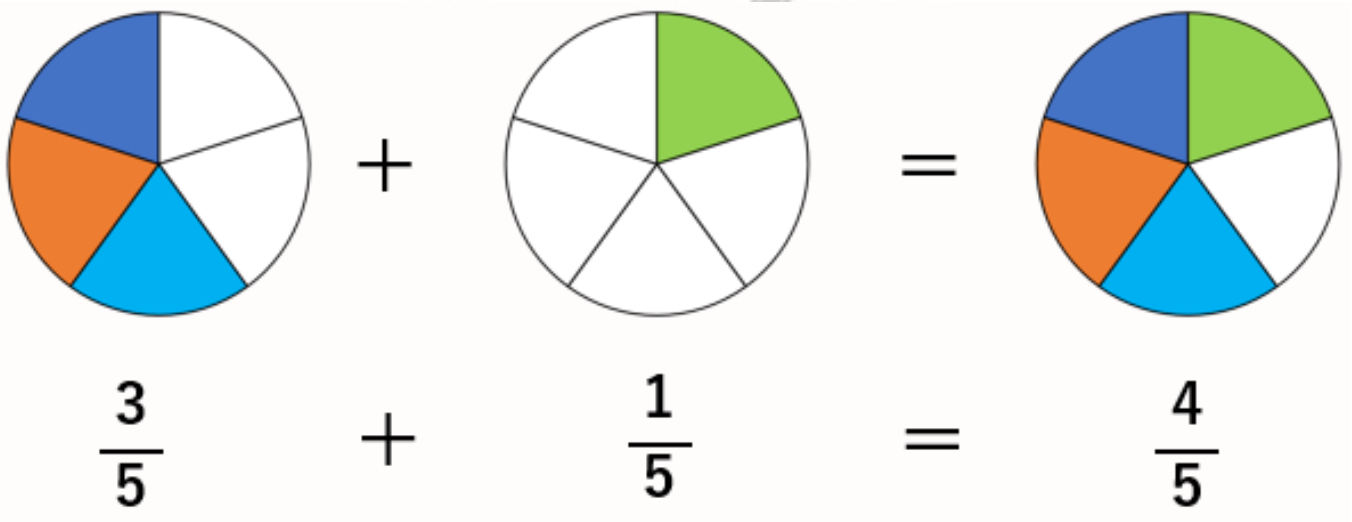
Example:2

$$\frac{3}{5} + \frac{1}{5}$$

Three-fifths means three parts out of five. One-fifth means one part out of five.

$$\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$$

This is what looks like with fraction diagrams is:



Date: _____

Day: _____

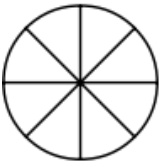
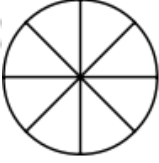
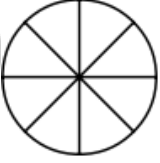
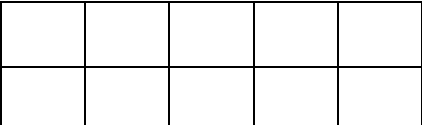
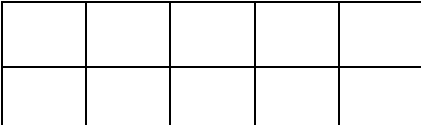
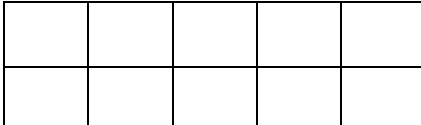
Exercise 5



1. Solve the following:

1.	$\frac{3}{7} + \frac{2}{7}$	2.	$\frac{3}{5} + \frac{1}{5}$	3.	$\frac{1}{9} + \frac{4}{9}$
4.	$\frac{5}{12} + \frac{2}{12}$	5.	$\frac{1}{8} + \frac{3}{8}$	6.	$\frac{1}{6} + \frac{3}{6}$

2. Colour the figure according to the given fractions:

 $\frac{1}{3}$	+	 $\frac{1}{3}$	=	 $\frac{2}{3}$
 $\frac{3}{8}$	+	 $\frac{2}{8}$	=	 $\frac{5}{8}$
 $\frac{3}{10}$	+	 $\frac{4}{10}$	=	 $\frac{7}{10}$

Subtraction of Fractions

In subtraction of fractions having the same denominator, we just need to subtract the numerators of the fractions.

To find the difference between like fractions we subtract the smaller numerator from the greater numerator.

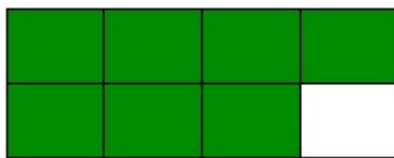
Example:

$$\frac{5}{7} - \frac{2}{7} = \frac{5-2}{7} = \frac{3}{7}$$

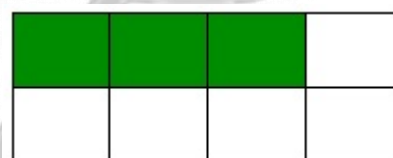
Follow the steps of subtraction of like fractions:

We can subtract in a similar way. $\frac{7}{8}$ of the class are boys.

$\frac{3}{8}$ of the class are girls. By how much fraction are the boys more?



$\frac{7}{8}$
Boys



$\frac{3}{8}$
Girls

$$\frac{7}{8} - \frac{3}{8} = \frac{7-3}{8} = \frac{4}{8}$$

The difference is $\frac{4}{8}$

Date: _____

Day: _____

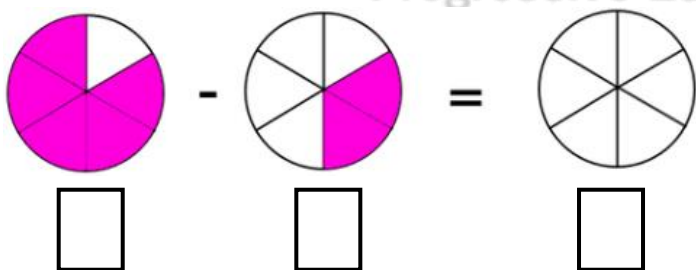
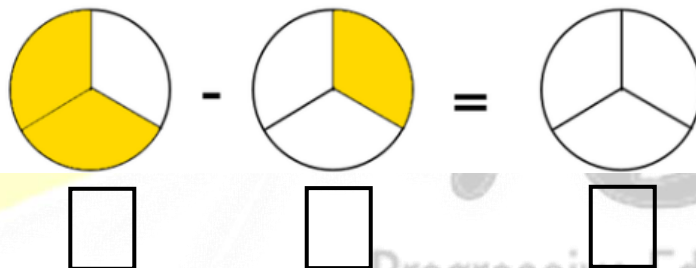
Exercise 6



1. Solve the following:

1.	$\frac{3}{7} - \frac{1}{7}$	2.	$\frac{5}{9} - \frac{1}{9}$	3.	$\frac{3}{5} - \frac{2}{5}$
4.	$\frac{5}{8} - \frac{2}{8}$	5.	$\frac{7}{12} - \frac{3}{12}$	6.	$\frac{5}{6} - \frac{3}{6}$

2. Write the fractions of the coloured parts and then Solve.



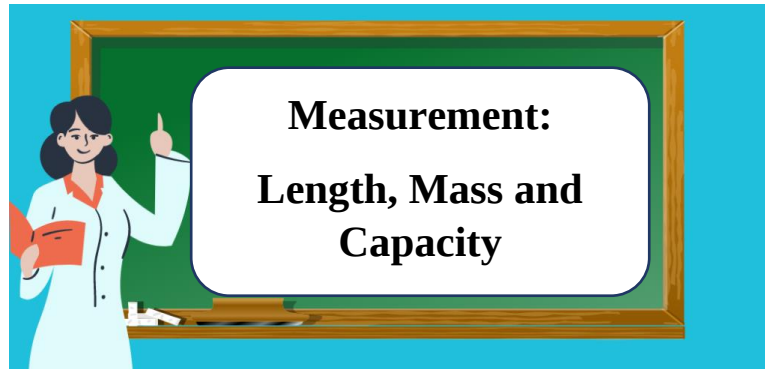
Knowledge Bank

- Proper Fraction
- Improper Fraction
- Equivalent Fraction
- Comparing fractions
- Common fractions
- Addition Fractions
- Subtraction of fractions

Important Note

Solve the review exercise given in the textbook by yourself.

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Unit 4**Learning Outcomes**

After Completing this unit, you will be able to:

- Use Standard metric units of length (kilometre, metre and centimetre) including abbreviations,
- Add measures of length in same units without carrying.
- Solve real life situations involving same units of length for addition.
- Subtract measures of length in same units without borrowing.
- Solve real life situations involving same units of length for subtraction without borrowing.
- Use standard metric units of mass (kilogram and gram) including abbreviations.
- Add measures of mass in same units without carrying.
- Solve real life situations involving same units of mass for addition without carrying.
- Subtract measures of mass in same units without borrowing.
- Solve real life situations involving same units of mass for subtraction without borrowing.
- Use standard metric units of capacity (litre and millilitre) including abbreviations.
- Add measures of capacity in same units without carrying.
- Solve real life situations involving same units of capacity for addition without carrying.
- Subtract measures of capacity in same units without borrowing.
- Solve real life situations involving same units of capacity for subtraction without borrowing.

Measurement of Length

Length means how long something is. We see many things around us. Some are short in length such as paper clips, pencils, pens, notebooks etc., some are long in length such as tree, electric pole, cloth, room, train track and some are very long such as distance between two places. We need to select a suitable unit to measure these lengths.

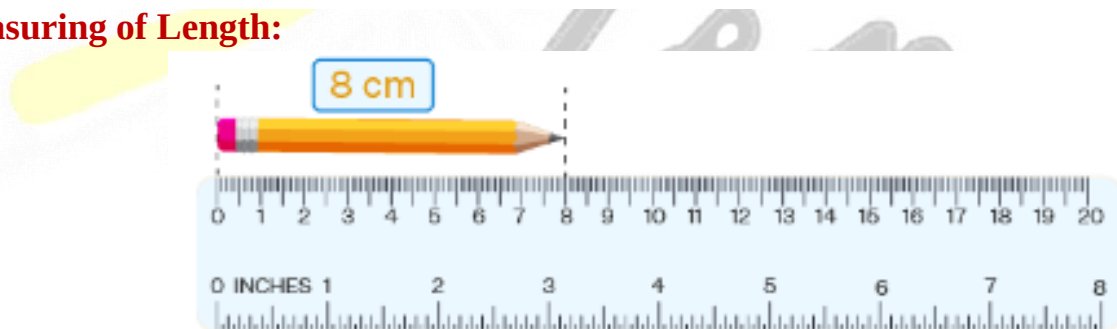
Non-Standard Units of Measurement

In early days body parts were used to measure length. But measurements taken by these means are not accurate and consistent. If we use our hand span to measure length, the measurement taken by different person will vary as our hand spans are not equal.

Example: a child hand span is smaller than the adult. So, hand span, hand, foot and cubit are not standard units of measurement.



Measuring of Length:



Key Fact

Meter is Written in short form as 'm'

Centimeter is written in short form as 'cm'

$$1 \text{ m} = 100 \text{ cm}$$

Date: _____

Day: _____

Following measuring scales are used to measure different objects.

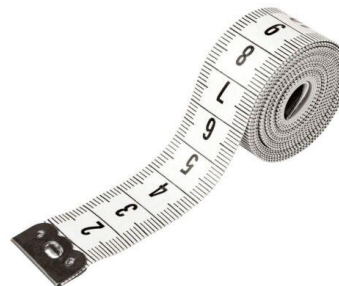
Metallic measuring tape



Metre rod



Plastic measuring tape



Scale

1 centimeter is about the width of a pencil.



about 1 centimeter

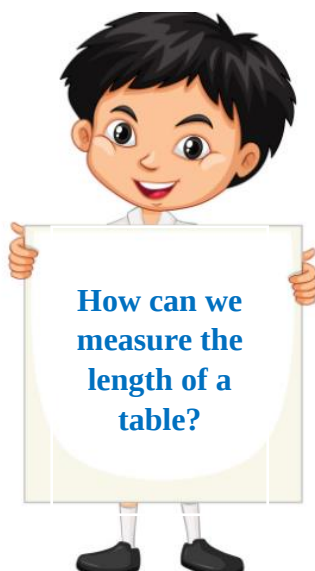
1 meter = 100 centimeters, it's about the length of a baseball bat.

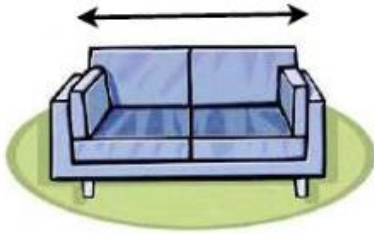


about 1 meter

work

Length of a table is measured in metres (m).



Activity #1: Choose the correct unit to measure each object below.**Objects****Choose the units****Metres****Centimetres****Metres****Centimetres****Metres****Centimetres****Metres****Centimetres****Metres****Centimetres**

Date: _____

Day: _____

Addition of Length

Metric Units of length

There are many more units, but for our purposes, the order goes (from smallest to largest)

Addition & Subtraction in:

Millimetres = mm

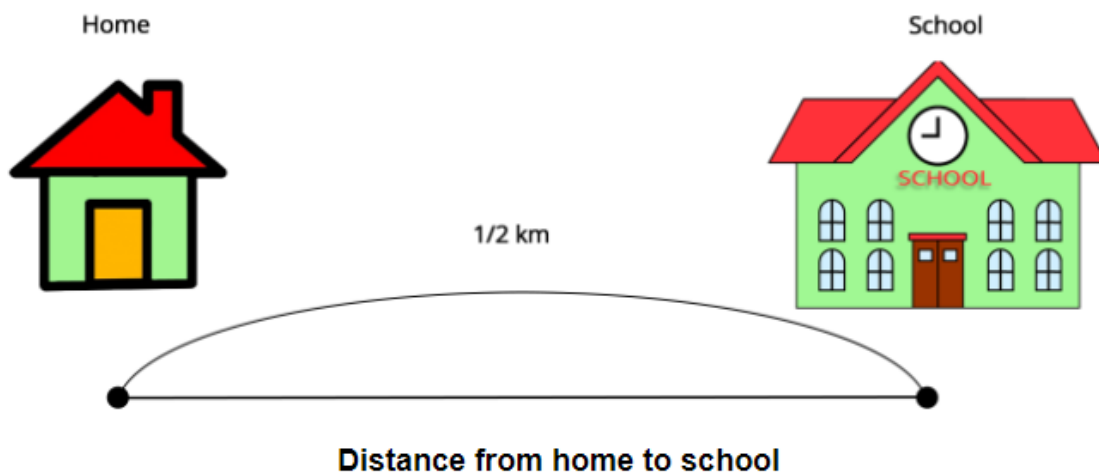
Centimetres = cm

Meters = m

What is Kilometre?

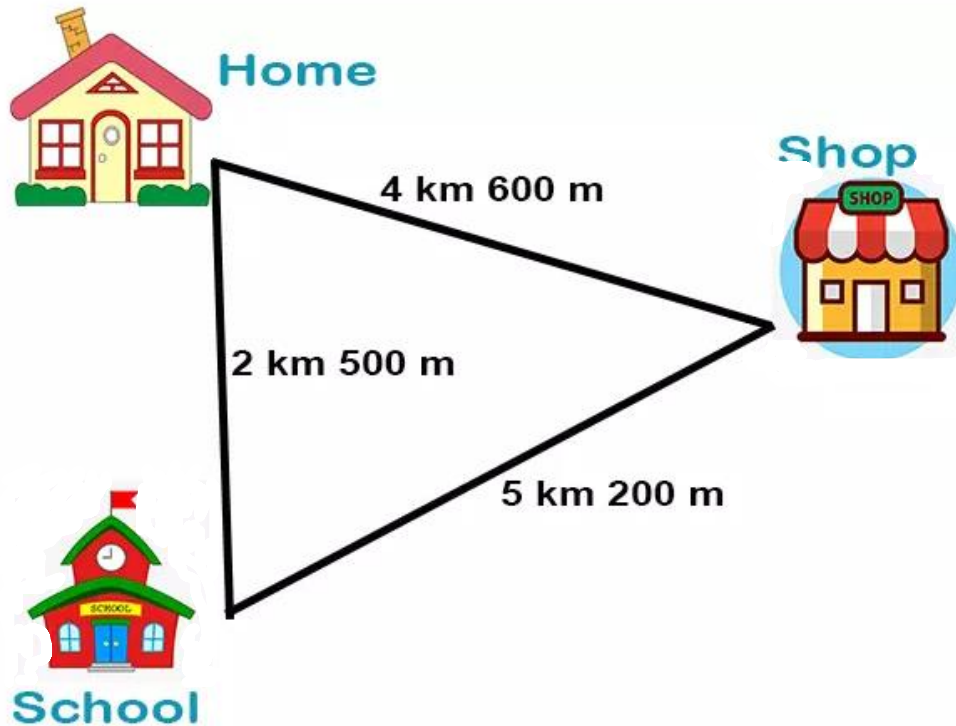
A kilometre is a unit that is used to measure distance. The term is abbreviated as km. The prefix kilo is derived from Greek which refers to a thousand. This interesting fact can help kids in understanding the conversion of metric units. Let us look into some examples where kilometres can be used.

- The distance between the school and my home is 2 km.
- The distance between Delhi and Bangalore is 2147 km.
- I go for a 3 km walk every morning.



Example:

The map below shows Mary's route. Let use it to answer the question below:



Mary cycled from school to the shop through home. What distance did she cover?

- Add metres into metres
- Add kilometres into kilometres
- 1km = 1000m

km	m
4	600
+ 2	500
7km	100m

Mary cycled 7 km 100 m.

Answer Hint:

- Start from the right: 600 m + 500 m = 1 100 m
- Convert 1 100 m to km: You get **1 km** 100 m
- Write the 100 in the metres column and carry the **1 km** into the kilometre's column.
- Lastly, calculate: 4 km + 2 km + **1 km** = 7 km.

Date: _____

Day: _____

Exercise 1



1.

	4m	6 5 cm
+	5m	1 2 cm

2.

	1 4m	5 0 cm
+	9m	4 0 cm

3.

	7 km	6 3 2 m
+	8 km	2 1 4 m

4.

	2 5 km	3 1 2 m
+	2 1 km	6 7 6 m

5.

	2 1 km	8 1 5 m
+	1 7 km	1 8 3 m

6.

	4 1 km	7 4 5 m
+	3 8 km	1 3 4 m

7. Ahmad used two wooden boards of lengths 3 m 10 cm and 4 m 35 cm for making a bookshelf. Find the total length of two wooden boards.

Date: _____

Day: _____

8. Junaid completes one round along the jogging track with a length of 300 m and width of 200 m. How much distance does he cover in one round?

9. In a long jump, Pervaiz jumps 4 m 25 cm in his first attempt and 5 m 15 cm in his second attempt. Find the total distance does he cover in two jumps.

10. Arsalan bought 4 m 70 cm cloth while Rizwan bought 5 m 20 cm cloth. Find the total length of cloths they bought.

Subtraction of Length

Subtraction of Metres and Centimetres without Borrowing

Example 1. Subtract 15 m 23 cm from 48 m 55 cm

Solution. Arrange the numbers in tabular format as shown below.

m	cm
48	55
- 15	23
33 m	32 cm

Step 1. First subtract centimetres from centimetres.

$55 \text{ cm} - 23 \text{ cm} = 32 \text{ cm}$. Write 32 cm under centimetre column.

Step 2. Subtract meter from metre

$48 \text{ m} - 15 \text{ m} = 33 \text{ m}$. Write 33 m under metre column.

So, the answer is 33 m 32 cm.

Activity #2: Mount Everest is the highest peak in the world, with the height of 8848 m. K-2 is the second highest peak with the height of 8611 m. How much more high is Mount Everest than K-s peak?

Solution:

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Date: _____

Day: _____

Exercise 2



1.

5 1 m	8 6 cm
- 3 0 m	7 5 cm

2.

2 5 m	9 3 cm
-1 4 m	2 3 cm

3.

1 5 km	3 6 5 m
-1 3 km	2 5 2 m

4.

7 6 m	6 7 cm
- 3 5 m	4 1 cm

5.

1 9 km	7 0 8 m
-1 5 km	2 0 5 m

6.

6 7 km	8 9 1 m
-5 1 km	7 6 0 m

7. Arsalan used 35 m 65 cm water pipe from 78 m 89 cm long pipe. How much pipe was left?

Date: _____

Day: _____

8. Rehana bought 19 m 82 cm lace and used 8 m 61 cm on her shirt. Find the length of remaining lace.

9. On returning from London, Subhan travelled 950 km 460 m distance by bus and taxi. If he travelled 900 km 230 m distance by bus. Find how much distance he travelled by taxi?

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Mass

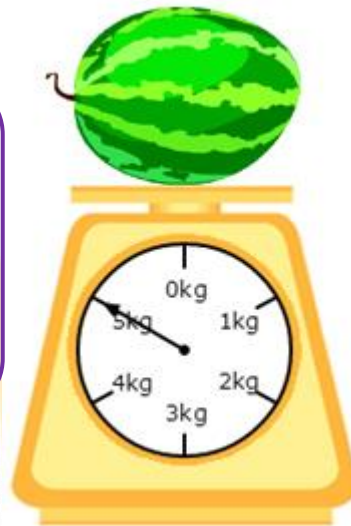
Mass is a measure of how much matter an object contains. Grams and kilograms are examples of units of measure for mass.

Mass can be measured with a scale.

Example:

What is the mass of the watermelon?

We measure mass of heavy objects in kilograms (kg) and mass of light objects in grams (g).



Key Points

Standard unit of mass is kilogram and gram.

The arrow on the scale points to 5 kg.
The watermelon has a mass of 5 kilograms.

Measuring the mass of an object is also known as weighing the object. We use different weighing scales or weighing machines to weigh objects.



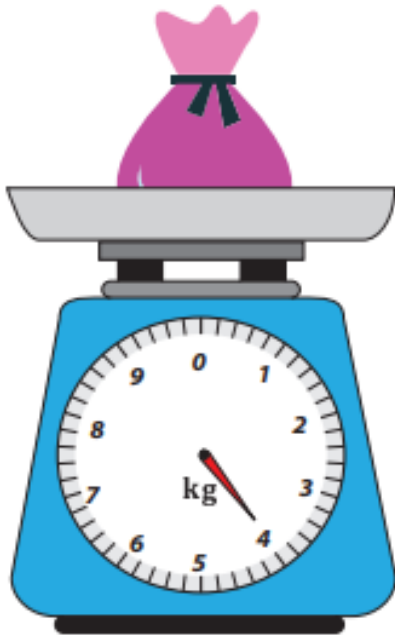
What is weight? Weight is the amount of matter present in a body. It is denoted by **W**. Do you know your weight? Have you asked your father's weight? Ask him how to measure it.

Date: _____

Day: _____

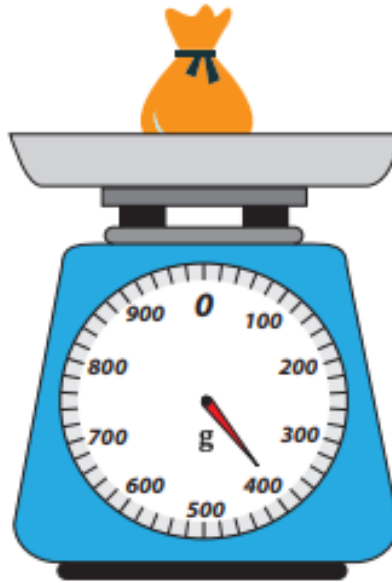
Activity #3: Use the pointer scale to weigh each item shown.

1)



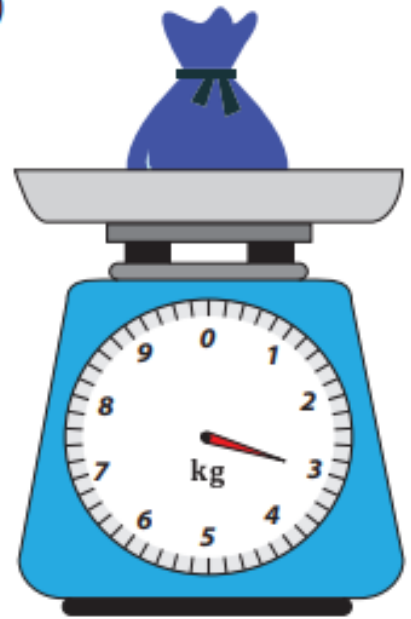
_____ kg

2)



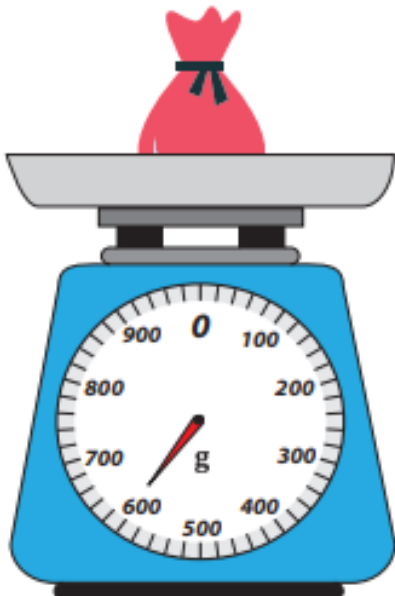
_____ g

3)



_____ kg

4)



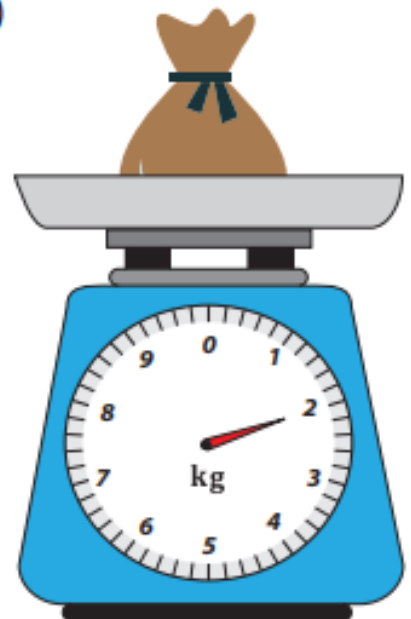
_____ g

5)



_____ kg

6)



_____ kg

Addition of Mass

While adding we need to follow that the units of mass i.e., kilogram and gram are converted into grams before addition and then follow the simple addition process. We can add two or more units of mass given in kilogram and grams like ordinary numbers.

Example: Add 7 kg 350 g and 2 kg 140 g

Here **kg** and **g** are arranged in different columns and then added like ordinary numbers.

Step I: Arrange the numbers vertically.

Step II: Write the weights to be added in kg and g as shown here.

Step III: First add grams from right and then add the kilograms.

= 9 kg 490 g

Therefore, sum of 7 kg 350 g and 2 kg 140 g = 9 kg 490 g

Key Facts

Add kilograms in kilograms.

Add grams in grams

1 kg = 1 000 g

kg	g
7	3 5 0
+ 2	1 4 0
9 kg	4 9 0 g

Activity #4:

In a market Rahman bought 12 kg 500 g of brinjal, 13 kg 140 g of potatoes and 14 kg 400 g of onion what is the total weight of vegetables?



kg	g
1 2	3 5 0
1 3	1 4 0
+ 1 4	4 0 0

Date: _____

Day: _____

Exercise 3



Solve the following

1.

8 5 kg	2 4 5 g
+ 1 0 kg	1 3 4 g

2.

2 8 kg	3 2 5 g
+ 3 1 kg	5 5 0 g

3.

6 8 1 kg	8 4 5 g
+ 1 1 6 kg	1 0 2 g

4.

1 2 kg	3 4 0 g
+ 3 5 kg	2 5 7 g

5.

9 6 2 kg	2 2 0 g
+ 3 6 kg	7 5 0 g

6.

3 4 2 kg	5 6 0 g
+ 3 7 kg	4 0 5 g

- a) The mass of Zara and Suleman's bags are 10 kg 300 g and 12 kg 400 g respectively. What is the total mass?

Date: _____

Day: _____

b) Rizwan bought 6 kg 250 g sweet biscuits and 3 kg 500 g salty biscuits. Find the total mass of the biscuits.

c) Sohail bought 15 kg 500 g almond and 12 kg 250 g pistachio. What was the total mass?

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Subtraction of Mass

Subtraction is done in the same way as in the case of numbers. When we subtract grams from grams, we get the difference in grams. When we subtract kilograms from kilograms, we get the difference in kilograms.

Example: Subtract 24 kg 225 g from 45 kg 565 g

Follow the steps:

(i) kg and g are arranged in columns

The steps we need to follow are:

- Place the number being subtracted under the number being subtracted from so that place values in the same column match.
- Subtract each column separately starting with the ones
- Write the result of the subtraction below each column.

kg	g
45	565
- 24	225
21 kg	340 g

Activity #5:

A sack had 25 kg 800 g rice. Out of 25kg rice 13 kg 500 g of rice which was used for noon meal. What is the weight of the remaining rice?



kg	g
25	800
- 13	500

Date: _____

Day: _____

Exercise 4



Solve the following:

1.

29 kg	750 g
- 18 kg	250 g

2.

9 kg	763 g
- 7 kg	250 g

3.

87 kg	986 g
- 66 kg	350 g

4.

76 kg	565 g
- 34 kg	324 g

5.

97 kg	850 g
- 53 kg	340 g

6.

82 kg	677 g
- 75 kg	500 g

7. A shopkeeper sold 16 kg 250 g chocolates from a chocolate carton of mass 27 kg 350 g. How many chocolates were left?

Measurement of Capacity

Capacity means how much liquid a container can hold. Bigger container can hold more compared to smaller container. This means big container has larger capacity whereas smaller has lesser capacity.

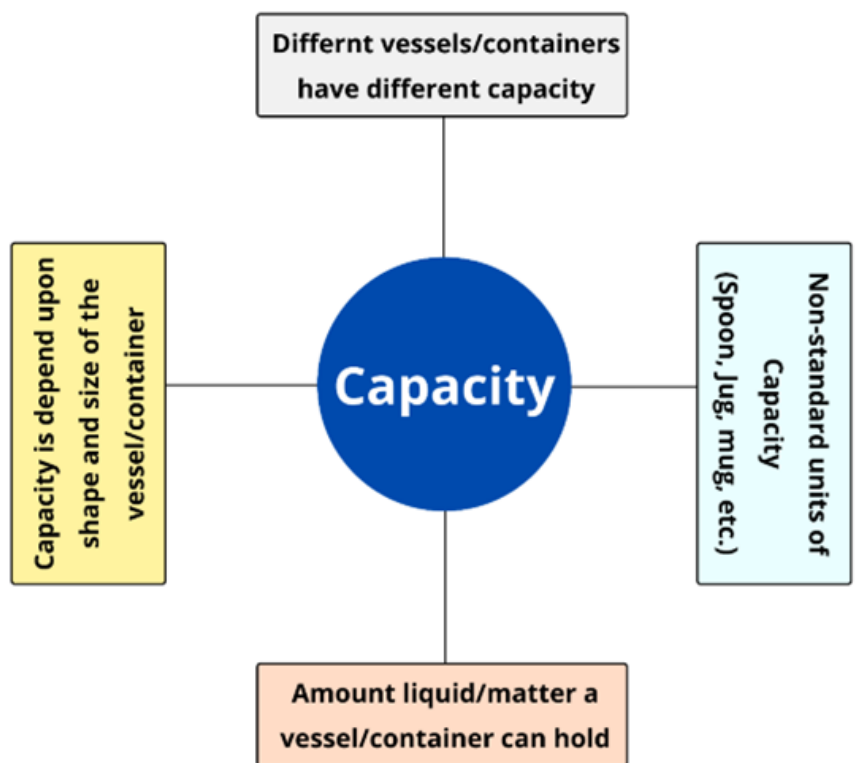
The standard unit of measuring capacity is the **litre** and we write “l” in short. Smaller quantities of liquid are measured in millilitres and we write “ml” in short. Medicines, water in glass, small juice packets etc. are measured in millilitres and milk, petrol, water etc. are usually measured in litres.

We use litre to measure capacity of large containers and millilitre of small containers.

Key Facts

1 litre (l) = 1 000 millilitre (ml)

The standard unit of capacity is litre.



Customary units of measurement



1 fluid ounce



1 cup of coffee



1 pint of juice



1 quart of milk



1 gallon of water

Date: _____

Day: _____

Activity #6: Estimate the capacity of each object

1)



☐ 0.5 L ☐ 900 mL ☐ 5 L

5)



☐ 150 mL ☐ 2 L ☐ 1.5 mL

2)



☐ 50 mL ☐ 500 mL ☐ 4 L

6)



☐ 1 L ☐ 20 mL ☐ 200 mL

3)



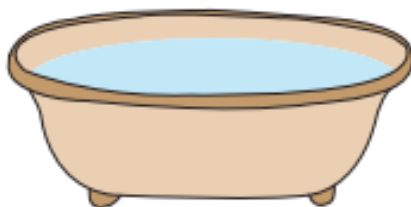
☐ 200 mL ☐ 2 L ☐ 20 mL

7)



☐ 150 mL ☐ 1.5 L ☐ 5 L

4)



☐ 1 L ☐ 7 L ☐ 700 mL

8)



☐ 2.5 mL ☐ 5 mL ☐ 25 mL

Addition of Capacity

In addition of capacity we will learn how to add the different units of capacity and volume together. While adding we need to follow that the units of capacity i.e., liter and milliliter are converted into milliliters before addition and then follow the simple addition process.

Addition of Units of Capacity:

Let's learn how to add different capacity measures. Here, litre and millilitre are arranged in different columns and then added like ordinary numbers.

Add 5 l 325 ml and 4 l 450 ml

Solution:

Let us add

Step I: Arrange the numbers vertically.

Step II: Write the capacities to be added in l and ml as shown here.

Step III: First, add millilitres from right and then add the litres.

Thus, 5 l 325 ml + 4 l 460 ml = 9 l 780 ml

	<i>l</i>	<i>ml</i>
	5	325
+	4	460
	9 l	785 ml

Activity #7: Solve the following:

a	<i>l</i>	<i>ml</i>
	50	300
	+ 30	750

b	<i>l</i>	<i>ml</i>
	50	703
	+ 20	720

c	<i>l</i>	<i>ml</i>
	7	320
	+ 2	525

Date: _____

Day: _____

Exercise 5



Solve the following:

1.

	1 5 l	6 7 5 ml
+	3 2 l	3 1 2 ml

2.

	8 l	3 5 0 ml
+	9 l	2 4 5 ml

3.

	4 2 l	6 5 1 ml
+	2 1 l	2 4 8 ml

4.

	3 5 l	4 5 9 ml
+	6 3 l	5 1 0 ml

5.

	7 3 l	3 4 2 ml
+	2 3 l	6 1 0 ml

6.

	5 4 l	8 0 0 ml
+	2 5 l	1 2 5 ml

- One bottle has 3 litre 240 millilitre and other has 5 litre 350 millilitre of water. How many litres of water is in both bottles?

Subtraction of Capacity

In subtraction of capacity, we will learn how to find the difference between the units of capacity and volume. While subtracting we need to follow that the units of capacity i.e., liter and milliliter are converted into milliliters before subtraction and then follow the simple subtraction process.

Subtraction of Units of Capacity:

Let us learn how to find the difference between capacities. Here, litre and millilitre are arranged in different columns and then subtract like ordinary numbers.

For example:

1. Subtract 6 l 425 ml from 8 l 627 ml.

Solution:

Let us subtract

Step I: Arrange the numbers vertically.

Step II: Write the capacities to be subtracted in l and ml as shown here.

Step III: First, subtract millilitres from right and then subtract the litres.

Thus, 8 l 627 ml - 6 l 425 ml = 2 l 785 ml

	<i>l</i>	<i>ml</i>
	8	627
-	6	425
	2 l	785 ml

Activity #8: Solve the following.

a	<i>l</i>	<i>ml</i>
	42	300
	- 25	200

b	<i>l</i>	<i>ml</i>
	25	500
	- 20	400

c	<i>l</i>	<i>ml</i>
	20	300
	- 17	100

Date: _____

Day: _____

Exercise 6



Solve the following:

1.

	1 8 l	6 5 5 ml
-	1 2 l	3 2 1 ml

2.

	8 l	7 4 2 ml
-	7 l	4 2 1 ml

3.

	4 5 l	7 5 8 ml
-	2 1 l	0 0 0 ml

4.

	2 5 l	4 5 0 ml
-	2 1 l	3 0 0 ml

5.

	7 5 l	9 1 5 ml
-	6 1 l	8 0 0 ml

6.

	5 8 l	8 3 4 ml
-	3 5 l	6 2 1 ml

1. Salman took 2 litre 450 millilitre of water in a bottle to school. One litre of water was in the bottle till break. How much water he drank?

Date: _____

Day: _____

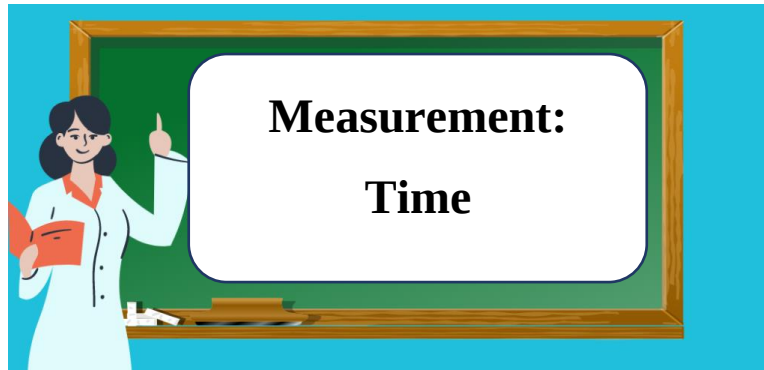
Knowledge Bank

- Length
- Mass
- Capacity
- Addition
- Subtraction
- Unit
- Millilitre
- Centimetre
- Metre
- Kilometre

Important Note

Solve the review exercise given in the textbook by yourself.

Progressive Education Network

Unit 5**Learning Outcomes**

After Completing this unit, you will be able to:

- Use a.m. and p.m. to record the time from 12-hour clock.
- Read and write time from analog and digital clock.
- Read and write days and dates from the calendar.
- Add measurements of time in hours.
- Solve real life situations involving measurements of time for addition of hours.
- Subtract measurements of time in hours.
- Solve real life situations involving subtraction of measurements of time in hours.



Analog and Digital Clocks

The clock is used to tell time and measure time.

- There are 2 types of clocks:



The Analog clock



The Digital clock

Analog Clock

There are 1 to 12 digits on the dial of an analog clock.

1 hour = 60 minutes

- An *analog clock* is a tool for reading the time of day.
- The **shortest hand** indicates the hour.
- The **longer hand** indicates the minutes.
- The **longest arm** indicates the seconds.

Learn the hands of the clock.



Digital Clock

A digital clock displays the time in numbers, rather than by clock hands.

It tells you the exact time.

A digital clock can easily be incorporated into any electronic device.

A digital clock uses numbers 0 - 23 or 1 - 12 to display the hour.



Activity #1:**Telling Time: A.M. and P.M.**

Check whether these actions happen in the a.m. or p.m.

1)



waking up

☐ A.M. ☐ P.M.

2)



enjoying a campfire

☐ A.M. ☐ P.M.

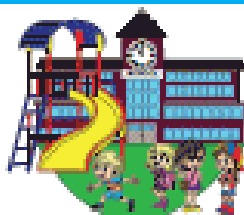
3)

watching a movie
after dinner
☐ A.M. ☐ P.M.

4)

jogging in the park
before breakfast
☐ A.M. ☐ P.M.

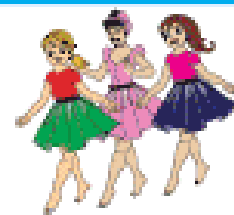
5)



morning recess at school

☐ A.M. ☐ P.M.

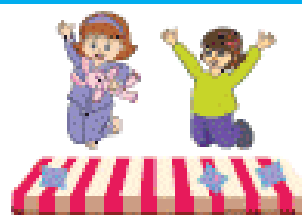
6)

taking ballet lessons
after school
☐ A.M. ☐ P.M.

7)

eating pancakes for
breakfast
☐ A.M. ☐ P.M.

8)



attending a slumber party

☐ A.M. ☐ P.M.

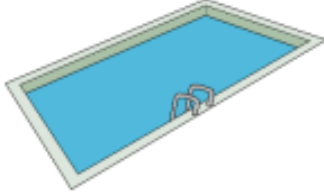
Date: _____

Day: _____

Exercise 1



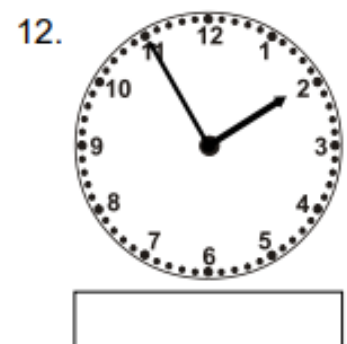
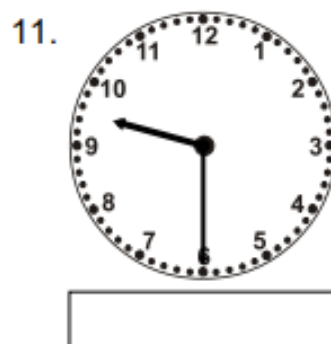
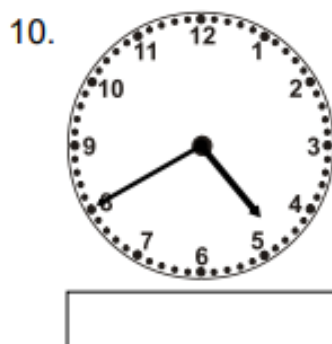
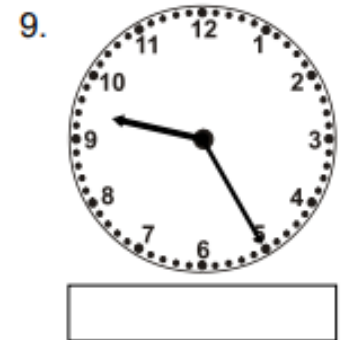
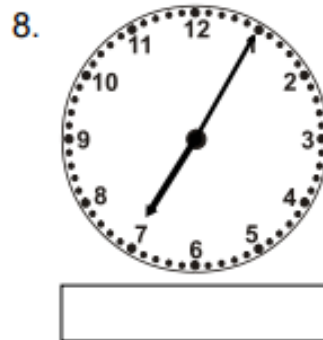
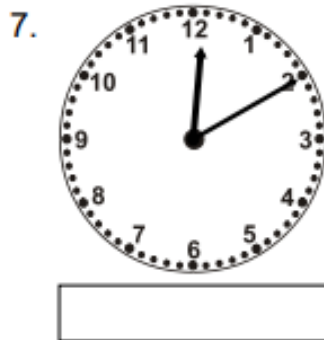
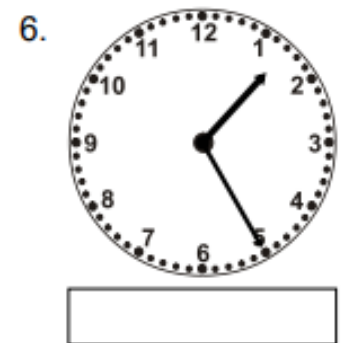
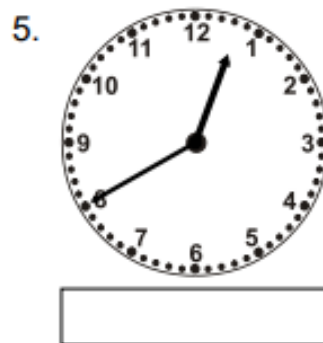
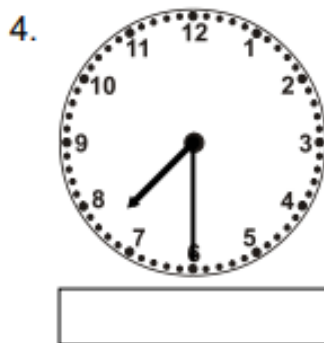
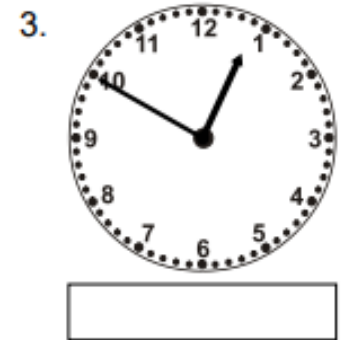
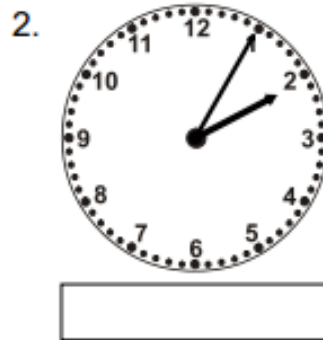
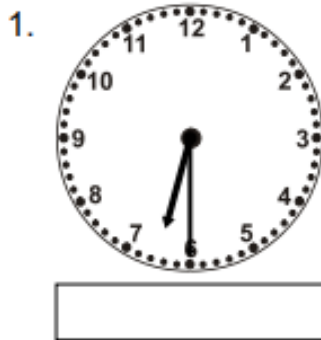
1. Write the time in a.m, p.m in the given boxes.

Eating Breakfast 	Taking a shower before going to sleep at night 	Watching baseball game on Friday evening 
Watching TV after school 	Swimming lesson every Sunday morning 	Playing toys after dinner 
Taking school bus to school 	Riding bike after lunch 	Sunrise 

Date: _____

Day: _____

2. Read the time from the following analog clock and write the given boxes:



Date: _____

Day: _____

3. Match the time of digital clock with the analog clock in the following:

1)



a)



2)



b)



3)



c)



4)



d)



5)



e)



Date: _____

Day: _____

What is a Calendar?

A calendar is a chart or series of pages that shows the days, weeks, and months of a particular year. A normal year of 365 days or a leap year of 366 days is divided into 12 months. Given below are the names of 12 months of the year:

Months in a Year:

1.	January	7.	July
2.	February	8.	August
3.	March	9.	September
4.	April	10.	October
5.	May	11.	November
6.	June	12.	December

Further, the 7 days are organized as a week, and there are 10080 minutes in a week. There are 168 hours in a week. Given below are the names of 7 days of the week:

Days of the Week:

1.	Monday
2.	Tuesday
3.	Wednesday
4.	Thursday
5.	Friday
6.	Saturday
7.	Sunday

Key Facts

1 day = 24 hours

1 week = 7 days

1 month = 4 weeks

1 year = 12 months

Date: _____

Day: _____

Activity #2: Answer the questions according to the calendar.

JANUARY						
S	M	T	W	T	F	S
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	27	28
29	30	31				

FEBRUARY						
S	M	T	W	T	F	S
			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	27	28				

MARCH						
S	M	T	W	T	F	S
			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	27	28	29	30	31	

APRIL						
S	M	T	W	T	F	S
						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	27	28	29
30						

MAY						
S	M	T	W	T	F	S
	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	27
28	29	30	31			

JUNE						
S	M	T	W	T	F	S
				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	27	28	29	30	

JULY						
S	M	T	W	T	F	S
						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	27	28	29
30	31					

AUGUST						
S	M	T	W	T	F	S
		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
27	28	29	30	31		

SEPTEMBER						
S	M	T	W	T	F	S
					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	27	28	29	30

OCTOBER						
S	M	T	W	T	F	S
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	27	28
29	30	31				

NOVEMBER						
S	M	T	W	T	F	S
			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	27	28	29	30		

DECEMBER						
S	M	T	W	T	F	S
					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	27	28	29	30
31						

- How many months are there in a year?
- How many weeks does this year have?
- Which month comes after June?
- Which is the 8th month?
- How many days are in the month of November?

Date: _____

Day: _____

Exercise 2



January 2016						
S	M	T	W	T	F	S
					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	27	28	29	30
31						

February 2016						
S	M	T	W	T	F	S
	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	27
28	29					

March 2016						
S	M	T	W	T	F	S
		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
27	28	29	30	31		

April 2016						
S	M	T	W	T	F	S
					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	27	28	29	30

May 2016						
S	M	T	W	T	F	S
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	27	28
29	30	31				

June 2016						
S	M	T	W	T	F	S
			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	27	28	29	30		

July 2016						
S	M	T	W	T	F	S
					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	27	28	29	30
31						

August 2016						
S	M	T	W	T	F	S
	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	27
28	29	30	31			

September 2016						
S	M	T	W	T	F	S
				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	27	28	29	30	

October 2016						
S	M	T	W	T	F	S
						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	27	28	29
30	31					

November 2016						
S	M	T	W	T	F	S
		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
27	28	29	30			

December 2016						
S	M	T	W	T	F	S
				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	27	28	29	30	31

Look at the calendar and answer the following questions:

- What is the day of January 31?
- Umair's birthday is on the second Wednesday of April. What is the date?
- Ahsan's Examination starts from 3rd of December. What is the Day?
- What is the date on last Friday of February?
- What is the day on 23rd of March?

Date: _____

Day: _____

Addition of Time

The steps to add times are the following:

- Add the seconds. If the seconds is more than 60 then subtract 60 from it and add 1 to the minute.
- Add the minutes. If the minutes is more than 60 then subtract 60 from it and add 1 to the hour.
- Add the hours.

Example:

Hours are denoted by “h”

$62 < 60$
 $60 \text{ mins} = 1 \text{ hour}$

Hours	Minutes
6 h	18 min
+ 3 h	44 min
9 h	62 min

Add 1 to
hour

-60 min

Hours	Minutes
¹ 6 h	18 min
+ 3 h	44 min
10 h	2 min

Date: _____

Day: _____

Exercise 3



Solve the following:

1.

	5 h
+	3 h

2.

	6 h
+	4 h

3.

	10 h
+	5 h

4.

	10 h
+	8 h

5.

	7 h
+	8 h

6.

	15 h
+	5 h

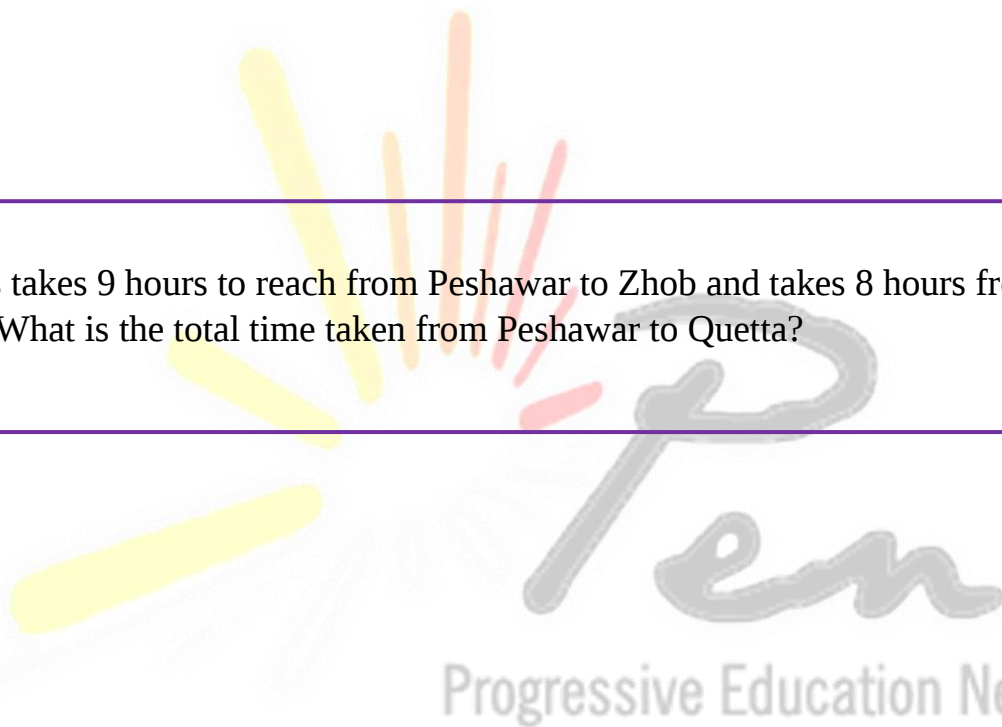
7. Saiqa's mother spends 5 hours for household chores and 2 hours for reading books. How much time does she spend altogether?

Date: _____

Day: _____

8. Waleed studies Science for 10 hours and mathematics for 8 hours in a week. How much time does he spend for both subjects?

9. A bus takes 9 hours to reach from Peshawar to Zhob and takes 8 hours from Zhob to Quetta. What is the total time taken from Peshawar to Quetta?



Subtraction of time in hours

Time is a varying factor. In a day, we have 24 hours, 1440 minutes, and 86400 seconds. Now, to calculate the time difference, we use the subtraction operator.

For example, if Rabia started her journey at 10:00 a.m. and reached her home at 12:00 p.m., what was the time difference between Rabia's journey from home to office, and vice versa?

Well, it's $12:00 - 10:00 = 2\text{hrs}$. This means that Rabia took two hours to reach her office.

Subtract 6 hours from 8 hours

	8 h
-	6 h
	2 h

Key Facts

Always subtract the lesser time from the greater time.

Example:

The show started at 2: 15 pm and ends at 6: 30 am. Find the duration of the show.

Hour	Minute
06	30
- 02	15
04 h	15 h

Hence, the duration of the show is 04: 15 minutes.

Date: _____

Day: _____

Exercise 4



Solve the following:

1.

	8 h
-	5 h

2.

	18 h
-	7 h

3.

	15 h
-	6 h

4.

	18 h
-	11 h

5.

	16 h
-	10 h

6.

	21 h
-	8 h

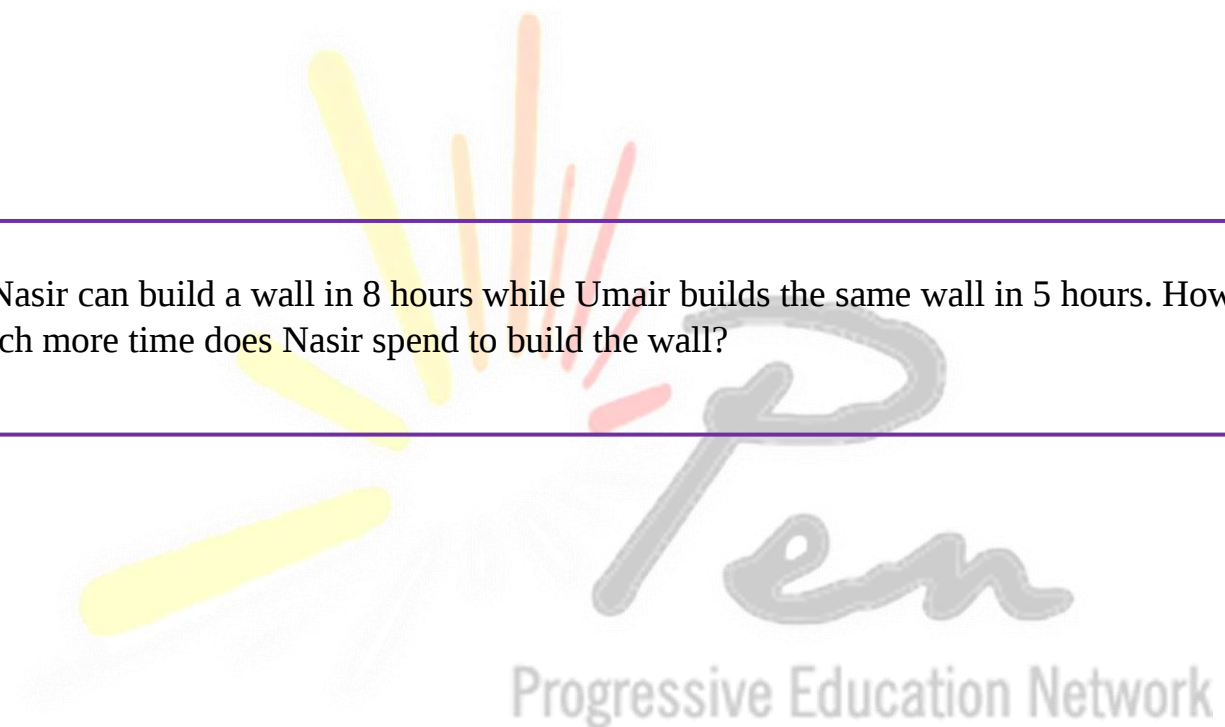
7. Saira spends 8 hours for studying Science while 5 hours for studying Mathematics. How much more time does she spend for Mathematics than Science?

Date: _____

Day: _____

8. Affan took 4 hours while his sister Areesha took 2 hours for cycling. How much more hours did Affan spend for cycling than Areesha? If Areesha started cycling at 11:00 a.m., then at what time did she spend stop cycling?

9. Nasir can build a wall in 8 hours while Umair builds the same wall in 5 hours. How much more time does Nasir spend to build the wall?



Date: _____

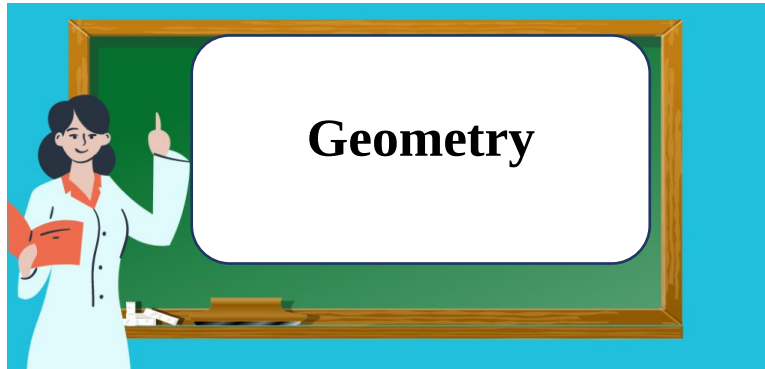
Day: _____

Knowledge Bank

- Digital Clock
- Analog Clock
- Hour Hand
- Minute Hand
- Week
- Months
- Years
- Time
- Week
- Month
- Years
- Calendar

Important Note

Solve the review exercise given in the textbook by yourself.

Unit 6**Learning Outcomes**

After Completing this unit, you will be able to:

- Draw and measure line segments to the nearest centimetre and millimetre.
- Recognize point, line, ray and line segment.
- Classify figures according to number of sides as quadrilaterals (rectangles, square) and triangles.
- Calculate perimeter of square, rectangle and triangle
- Identify centre, radius and diameter of a circle.
- Identify reflective symmetry in two-dimensional (2-D) shapes.
- Identify and draw lines of symmetry.
- Describe 3-D objects (cubes, cuboid and pyramids) with respect to the number of edges and faces.
- Differentiate 3-D objects (cubes, cuboid and pyramids) with respect to the number of edges and faces.

Point, line, ray and line segment

Point

A point denotes an exact location in space. It is indicated by a dot. It specifies only position and has no length, width, or height. We always name a point by using a capital letter.

• A

• B

• C

Line Segment

A line segment is formed when two points are joined. The two given points are called the end points of the line segment. A line segment is a line with two endpoints.



AB

Line

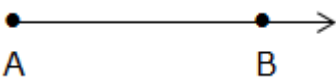
When we extend line segment through its end points in both directions infinitely (without any end), a line is formed. A line has no ends.



This is line $\overleftrightarrow{AB}$

Ray

When we extend the line segment in one direction beyond its end point, a ray is formed.



This is ray $\overrightarrow{AB}$

Key Note:

A line segment has two end points.

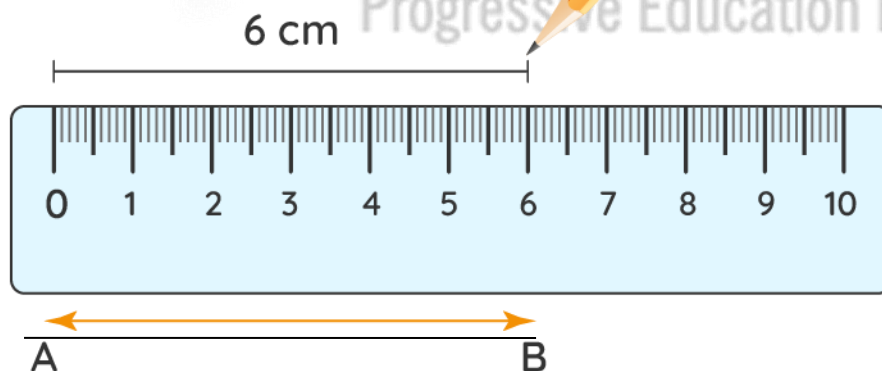
A ray has one end point.

A line has no end point.

Draw and measure line segment (centimetre and millimetre)

In order to draw a line segment of the required length, the simplest and the easiest method is to use a ruler.

- **Step 1:** Take a scale and check for its start point, which is zero.
- **Step 2:** Place the scale on the sheet of paper and mark the starting point of the line segment with a dot on the paper. Mark it as A.
- **Step 3:** Mark the endpoint of the line segment, that is till the required length, say 6 cm. Mark it as B
- **Step 4:** Draw a straight line joining the two points. We will get a line segment AB of length 6 cm



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This ruler measures in centimeters.
The numbers signify whole centimeters.
All the shorter lines between those
are for millimeters.

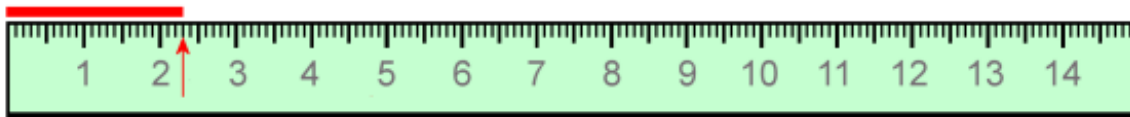
The distance from one short line to the
next line is 1 millimeter. We write 1 mm.
Millimeters are very tiny!

The distance between
these two is 1 mm.



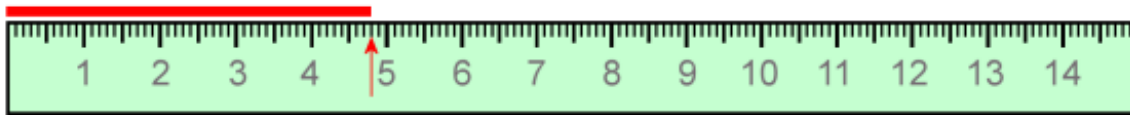
Look at the ruler: **there are 10 millimeters in each centimeter.**

Measuring lines: First see how many whole centimeters long the line is.
Then count how many little millimeter-lines beyond that it reaches.



This line is 2 cm 3 mm long. At the same time, it is 23 mm long. Why?

Each centimeter is 10 mm, so 2 cm is 20 mm. That means 2 cm 3 mm makes 23 mm in total.



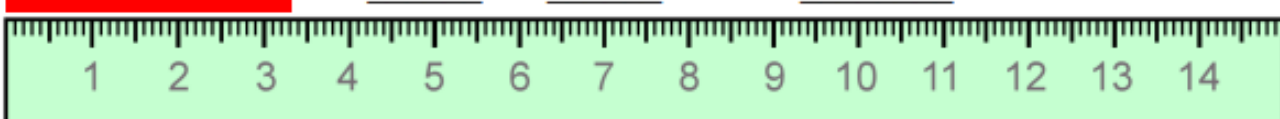
This line is 4 cm 8 mm long. At the same time, it is 48 mm long.

Activity #1:

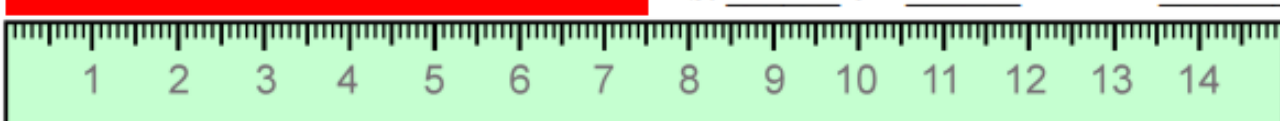


1. Measure the lines using the ruler, first in whole centimeters and millimeters. Then write their lengths using millimeters only.

a. _____ cm _____ mm = _____ mm



b. _____ cm _____ mm = _____ mm



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Exercise 1

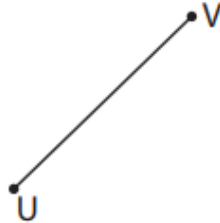


1. Identify the point, line, line segment and ray.

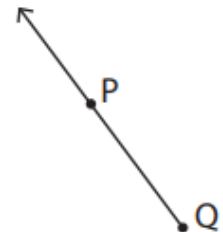
1)



2)

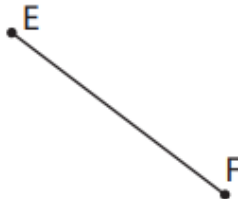


3)





4)



5)



6)



7)



Date: _____

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2. Measure the length of the given line segments in centimetres and millimetres.



3. Draw the line segments of the given lengths.

(i) 1.9 cm

(ii) 4.2 cm

(iii) 5.6 cm

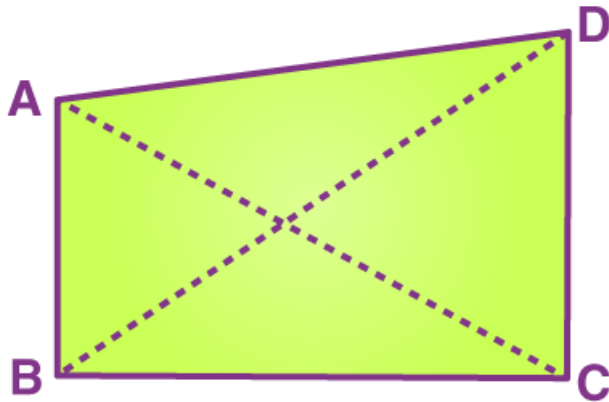
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Quadrilaterals:

Quadrilateral just means "four sides"
(*quad* means four, *lateral* means side).

A closed figure with 4 sides and 4 corners is called quadrilateral. The 4 corners are called vertices of the quadrilateral.



WHAT IS A QUADRILATERAL?

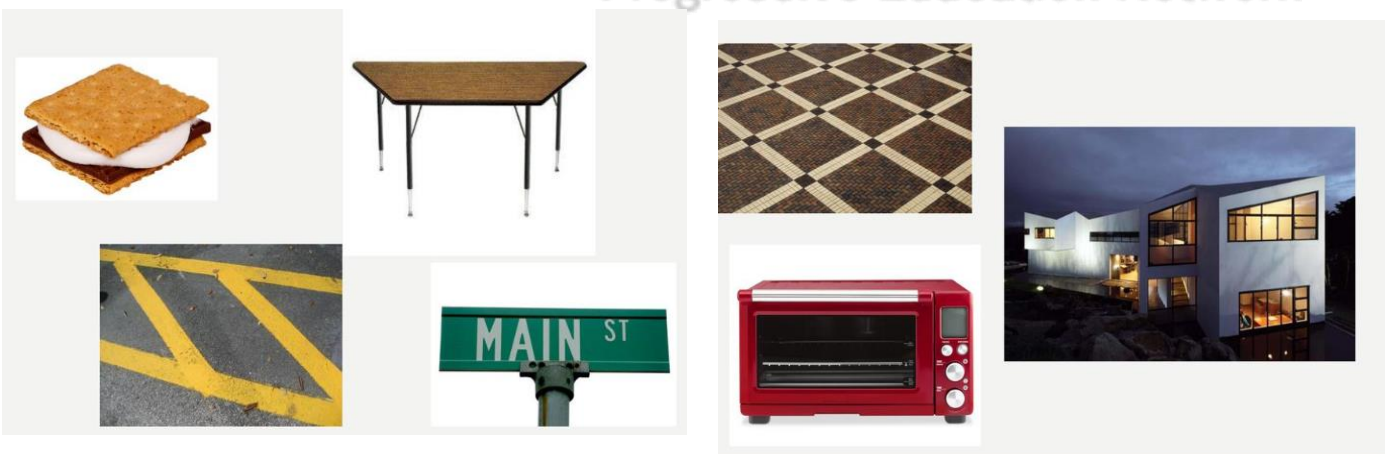
A quadrilateral is a two-dimensional figure with four sides and four angles.

Properties

A quadrilateral has:

- four sides (edges)
- four vertices (corners)
- interior angles that add to **360 degrees**:

Quadrilateral in Real Life:

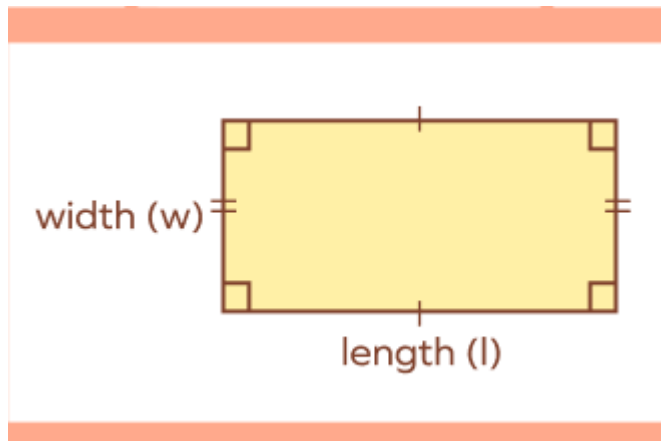


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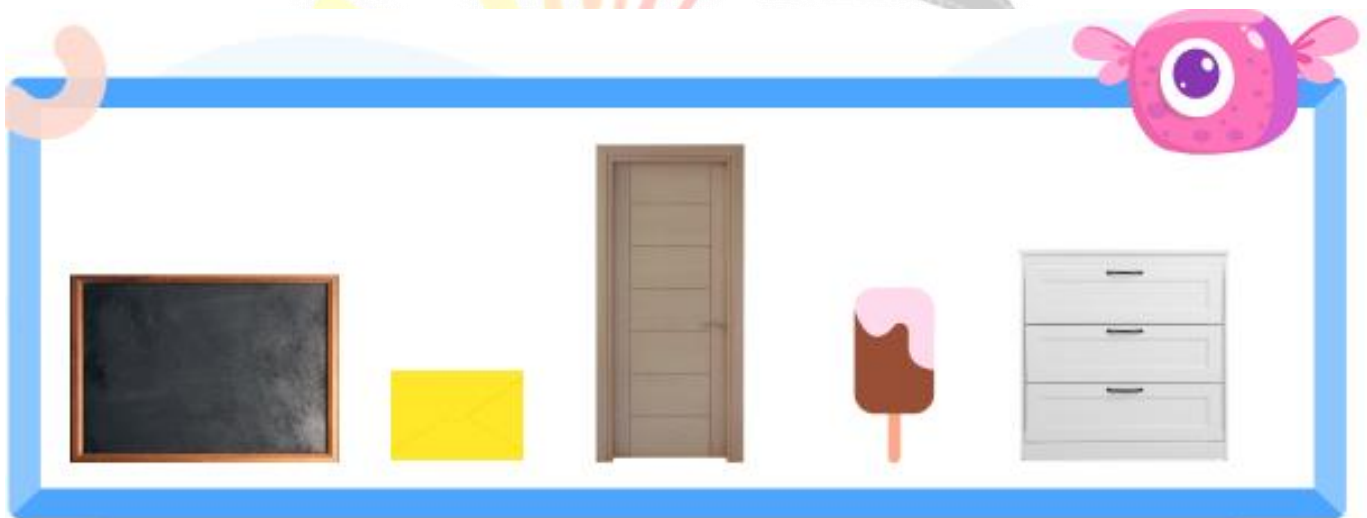
Rectangle:

A **rectangle** is a closed two-dimensional figure with four sides. The opposite sides of a rectangle are equal and parallel to each other and all the angles of a rectangle are equal to 90° . Observe the rectangle given below to see its shape, sides and angles.

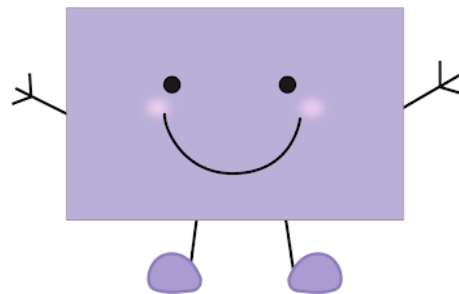


Rectangles around us

Rectangle being the most common shape forms a part of our day-to-day life. Some real-life examples of the rectangle are given below.



I am a rectangle. I have 4 straight sides and 4 vertices. The length of my opposite sides is equal.

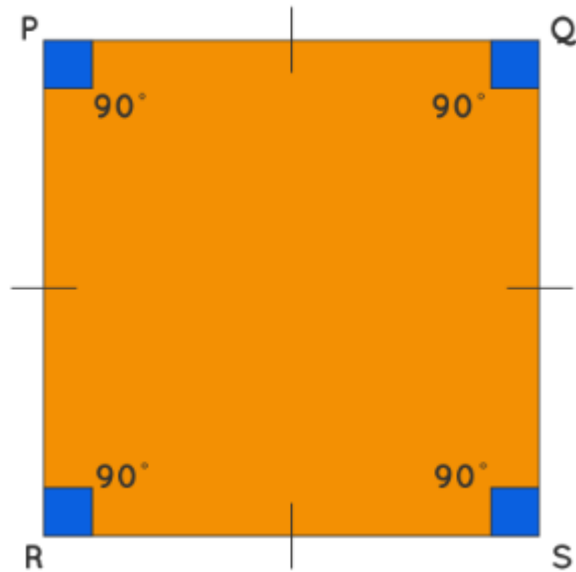


Date: _____

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Square:

A square is a closed two-dimensional shape ([2D shape](#)) with four sides. All four sides of a square are equal and parallel to each other. The basic figure of a square is shown below.



Square Definition

A square is a [quadrilateral](#) in which:

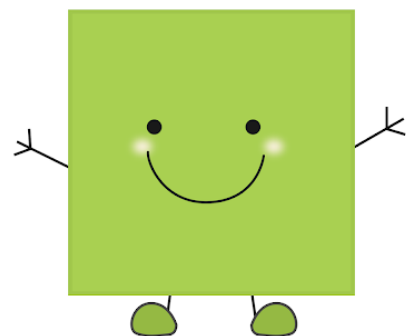
- The opposite sides are parallel.
- All four sides are equal.
- All angles measure 90° .

Squares around us:



work

I am a square. I have 4 straight sides and 4 vertices. My all sides are equal.

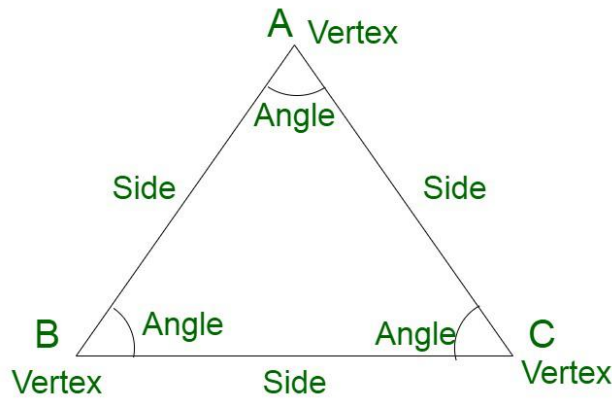


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Triangle:

A triangle is a closed shape 2-dimensional shape with 3 sides, 3 angles, and 3 vertices. A triangle is also a [polygon](#). The basic figure of a triangle is shown below.

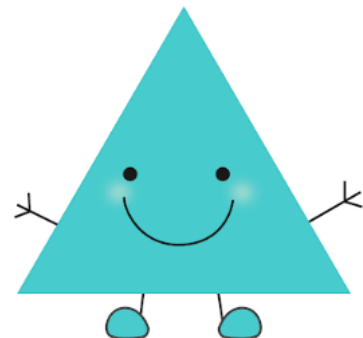


Examples of Triangles:

Some real-life examples of triangles include sandwiches, traffic signs, cloth hangers, and a rack in billiards.



I am a triangle. I have 3 straight sides and 3 vertices. My sides may or may not be equal.



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Circle:

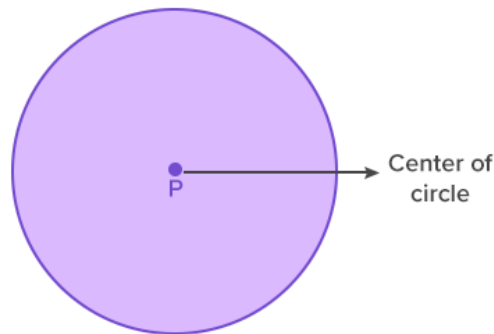
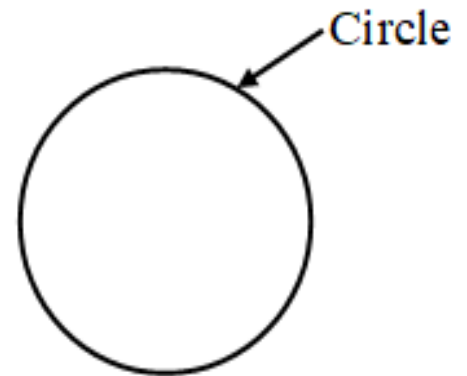
What Is a Circle?

A circle is a round-shaped figure that has no corners or edges.

In **geometry**, a circle can be defined as a **closed shape**, **two-dimensional shape**, curved shape.

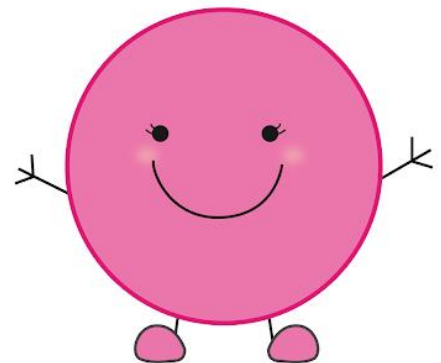
Centre of a Circle

The centre of a circle is the centre point in a circle from which all the distances to the points on the circle are equal. This distance is called the radius of the circle.



Examples of Circles:

A few things around us that are circular in shape are a car tire, a wall clock that tells time, and a lollipop.



I am a circle. The distance of my all points from the centre is equal. I have no side and no vertex.

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Perimeter of a Square – Introduction

In geometry, the perimeter of a shape is defined as the total length of its boundary. The perimeter of a square is determined by adding the length of all the sides. It is measured in linear units of measurement like centimeters, meters, inches, or feet.

What is the Perimeter of a Square?

The perimeter of a square is the total length of all the sides of the square. Hence, we can find the perimeter of a square by adding all its four sides.

All the sides of a square are equal. So, the perimeter of a square is calculated by adding the side of a square four times.

Perimeter of a Square Formula:

To calculate the perimeter of a square,

We use the following formula:

1st method:

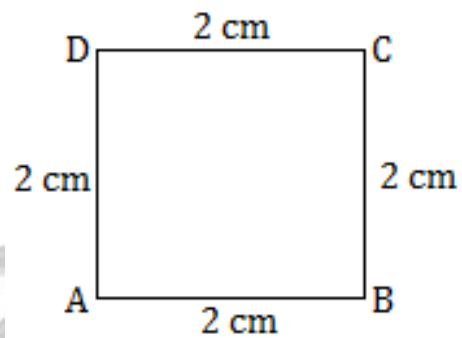
Perimeter of a square ABCD

$$\begin{aligned} &= \text{side} + \text{side} + \text{side} + \text{side} \\ &= 2 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} + 2 \text{ cm} \\ &= 8 \text{ cm} \end{aligned}$$

2nd method:

Perimeter of a square = 4 times side

$$\begin{aligned} &= 4 \times \text{side} \\ &= 4 \times 2 \text{ cm} \\ &= 8 \text{ cm} \end{aligned}$$



Perimeter of a square is 4 times of side.

Perimeter of a square = 4 × length of a side.

A square is a four-sided figure in which

- all the four sides are equal (length = breadth)
- all the angles are equal to 90° (right angle)

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Perimeter of a Rectangle – Introduction

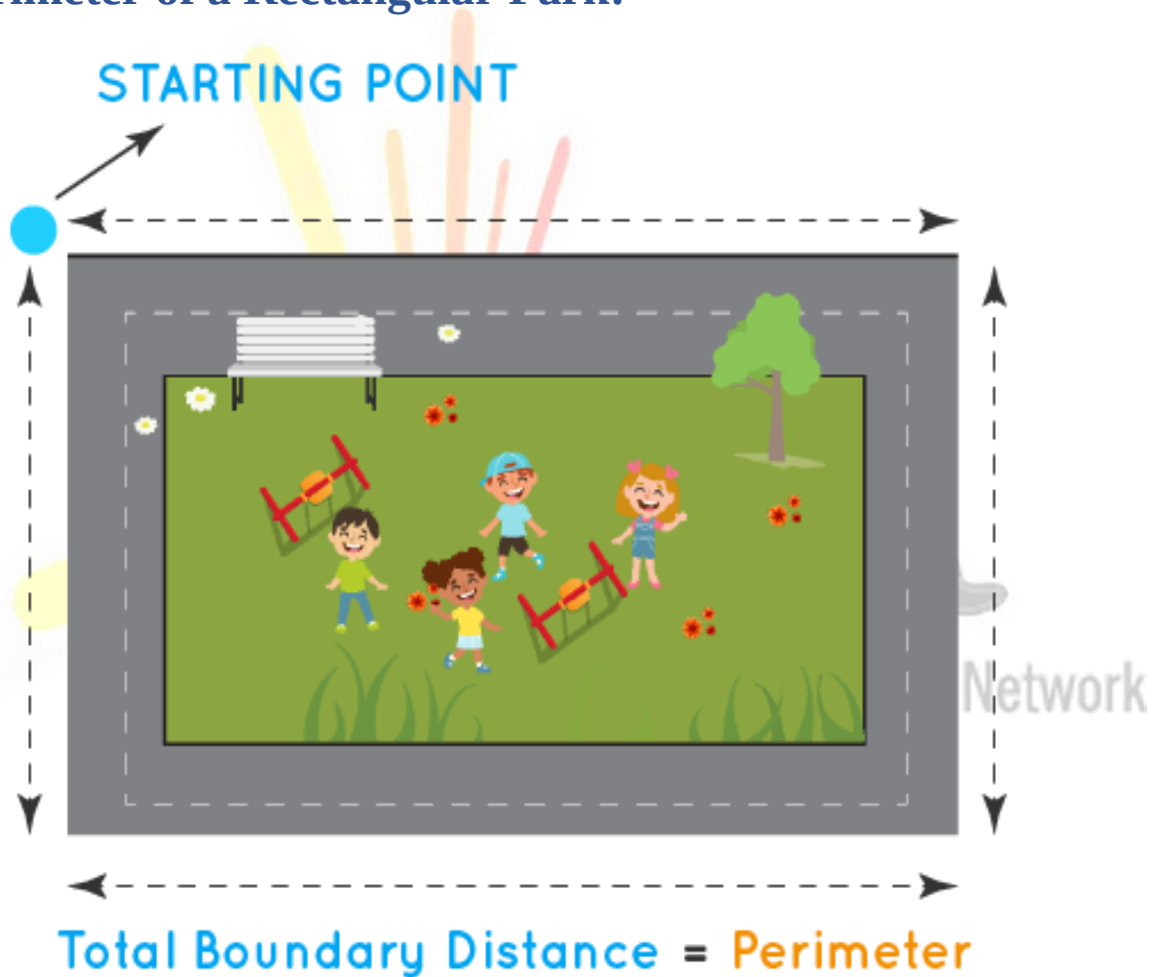
The **perimeter of a rectangle** is the total distance of its outer boundary. It is twice the sum of its length and width and it is calculated with the help of the formula: $\text{Perimeter} = 2(\text{length} + \text{width})$.

Let us first understand the two main properties of a rectangle.

- All four [angles](#) of a rectangle are 90° .
- The opposite sides of a rectangle are equal in measure.

Imagine a rectangular park in your neighborhood. Have you ever thought about how long its boundary is?

Perimeter of a Rectangular Park:



If you go around the park along its boundary once, you cover a distance. This distance is the **perimeter** of the park.

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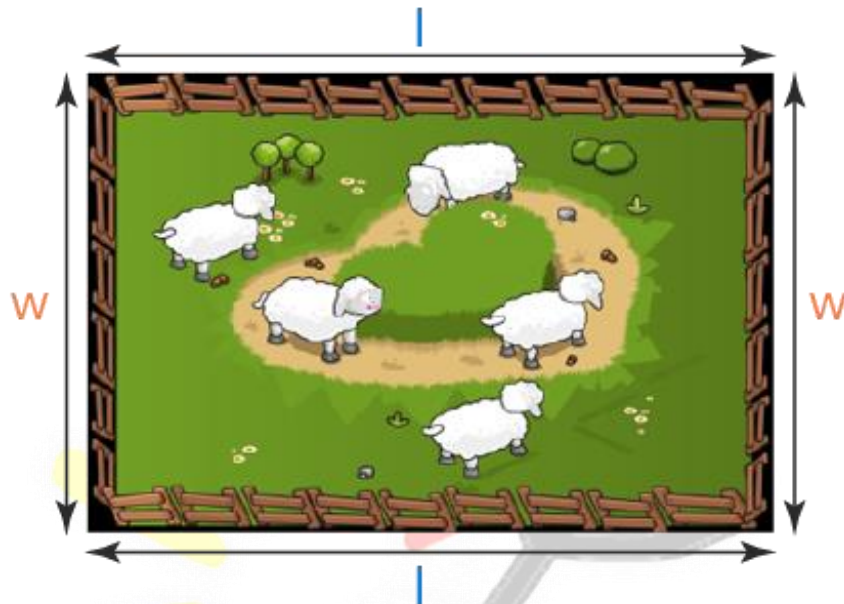
Perimeter of Rectangle Formula:

The formula used to calculate the perimeter of a rectangle is, perimeter of a rectangle = $2(l + w)$, where 'l' is the length and 'w' is the width of the rectangle.

Simple Example:

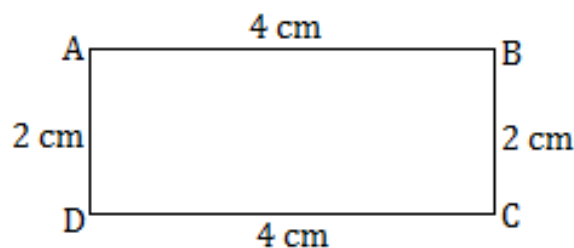
David wants to put a fence around his farm so that his sheep does not wander away. Let us now understand this formula with an example.

He wants to know how much wire he would need to put a fence around his rectangular farm.



$$\text{Perimeter of a rectangle} = 2(l + w)$$

Let us first name the sides of his farm. The larger side of this rectangular farm is named (l). The smaller side is named (w). Now, if we add the distance of all 4 sides of his farm, it will give us the perimeter. Total distance = $l + w + l + w = 2l + 2w$. Therefore, the Perimeter of a rectangle = $2(l + w)$. Let us use this formula in the following examples.



In the above figure ABCD is a rectangle.

Three children found the perimeter of this rectangle in three different methods.

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1st method:

$$\text{Perimeter} = 4 \text{ cm} + 2 \text{ cm} + 4 \text{ cm} + 2 \text{ cm} = 12 \text{ cm}$$

2nd method:

$$\text{Perimeter} = 2(4 \text{ cm}) + 2(2 \text{ cm}) = 8 \text{ cm} + 4 \text{ cm} = 12 \text{ cm}$$

3rd method:

$$\text{Perimeter} = 2(4 \text{ cm} + 2 \text{ cm}) = 2 \text{ cm} \times 6 \text{ cm} = 12 \text{ cm}$$

All the three methods gave them the same answer.

Perimeter of a rectangle = length + breadth + length + breadth

$$= (2 \text{ length}) + (2 \text{ breadth})$$

$$= 2(\text{length} + \text{breadth})$$

Perimeter of a Triangle:

A perimeter of a shape is the length of its boundary or the total length around the [shape](#).

The perimeter of a 2D [closed shape](#) = sum of all its side.

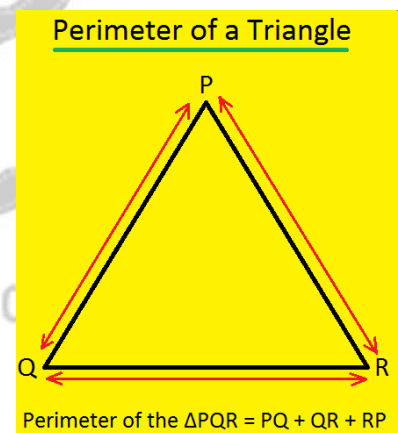
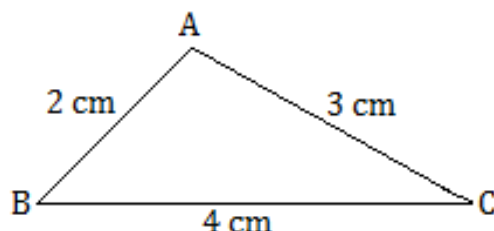
The perimeter of a triangle

is the sum of all its three sides.

We can work out the perimeter

using the following formula:

Perimeter of a triangle = sum of all three sides



- The perimeter of a triangle ABC

$$= AB + BC + CA$$

$$= 2 \text{ cm} + 4 \text{ cm} + 3 \text{ cm},$$

(Add the length of each side of the triangle).

$$= 9 \text{ cm}$$

Perimeter of the triangle = Sum of the sides.

Date: _____

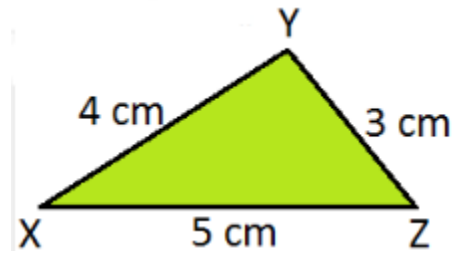
Day: _____

- A triangle has 3 sides

The perimeter of the triangle XYZ

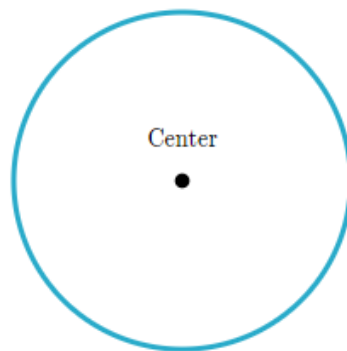
$$= 3 \text{ cm} + 5 \text{ cm} + 4 \text{ cm}$$

$$= 12 \text{ cm}$$



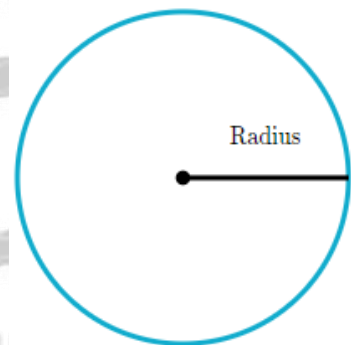
Identify centre, radius and diameter of a circle:

Every circle has a center, which is a point that lies exactly at the... well... center of the circle. A circle is a shape where distance from the center to the edge of the circle is always the same:



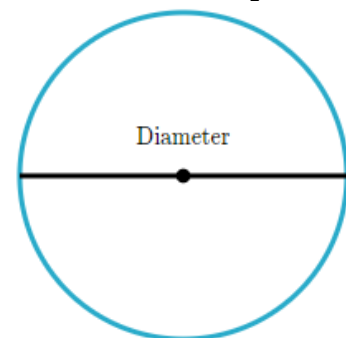
Radius of a circle

The distance from the centre of a circle to any point on the boundary is called "radius".



Diameter of a circle

The diameter is the length of the line through the center that touches two points on the edge of the circle.



Date: _____

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Exercise 2



1. Label and identify the point, line, line segment and ray in the following figure:

1)



2)



3)



4)



5)



6)



7)



8)



9)

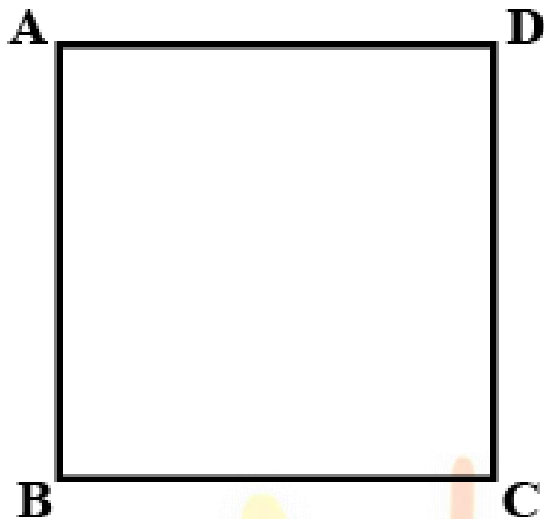


Date: _____

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2. Write name, measures the length of sides, then find the perimeter of the following:

i)



Name =

AB =

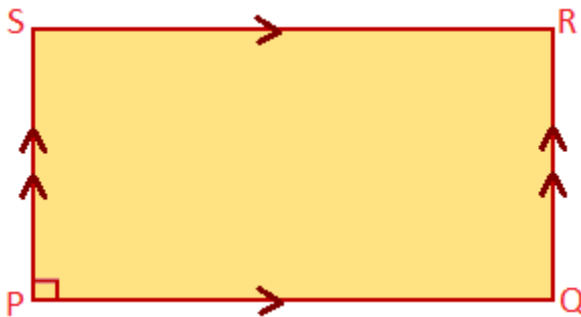
BC =

CD =

AD =

Perimeter=

ii)



Name =

PQ =

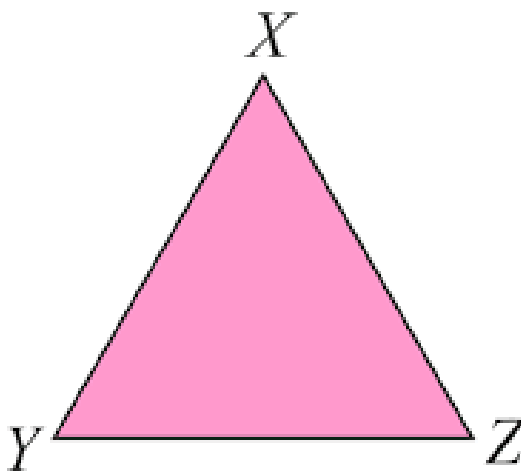
QR =

RS =

PS =

Perimeter=

iii)



Name =

XY =

YZ =

XZ =

Perimeter=

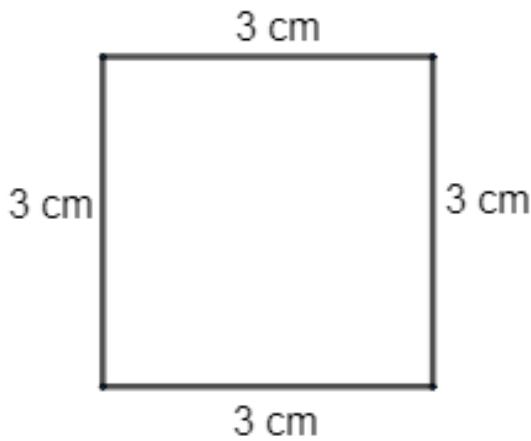
Progressive Education Network

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3. Find the perimeter of the following:

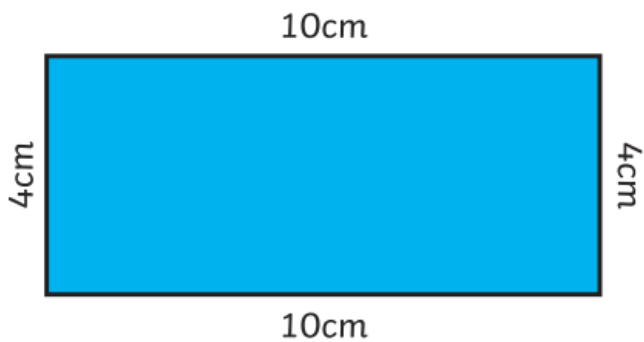
i)



Solution:

4. Find the perimeter of the rectangular figure:

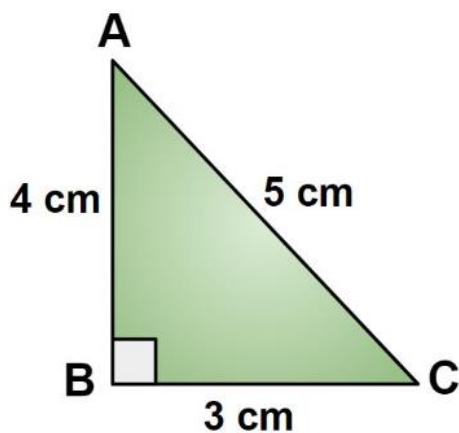
ii)



Solution:

5. Find the perimeter of the following triangle:

iii)



Solution:

Date: _____

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6. Find the perimeter of the book with length of 27 cm and width of 21 cm.

Solution:

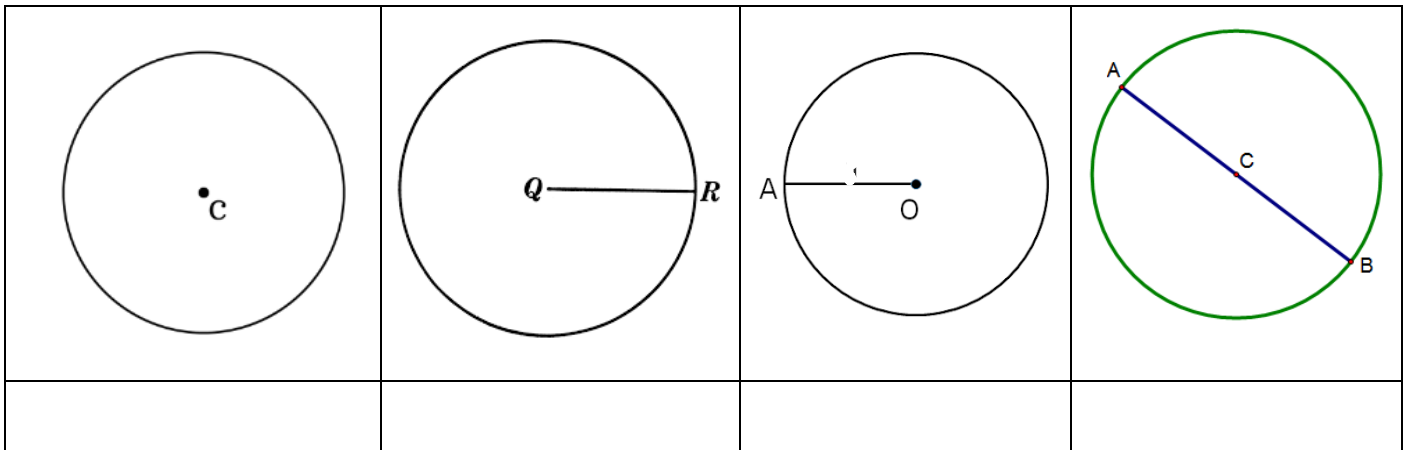
7. A door with a length of 210 cm and width of 118 cm. Find its perimeter.

Solution:

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8. Identify the centre, radius and diameter in the following circles:

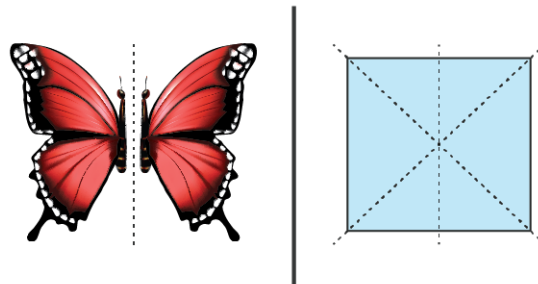


Reflective Symmetry:

Many things around us are symmetrical. Things in nature animals, plants and buildings have symmetrical shapes. Look at the objects given below. There are symmetrical shapes because one part of the figure to the left of the line when folded, it exactly covers the right part of the figure. This “line” is called line of symmetry.



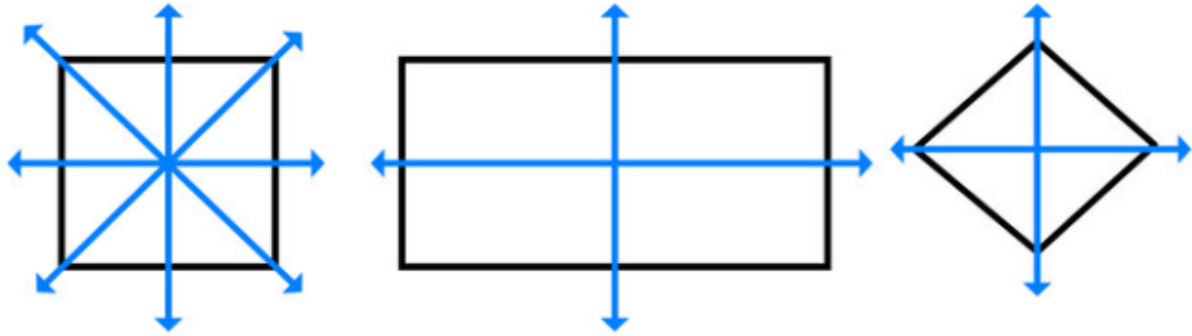
Reflective symmetry is a type of symmetry where one-half of the object reflects the other half of the object. It is also known as mirror symmetry. For example, in general, human faces are identical on the left and right sides. The wings of most butterflies are identical on both sides, the left and right sides.



Date: _____

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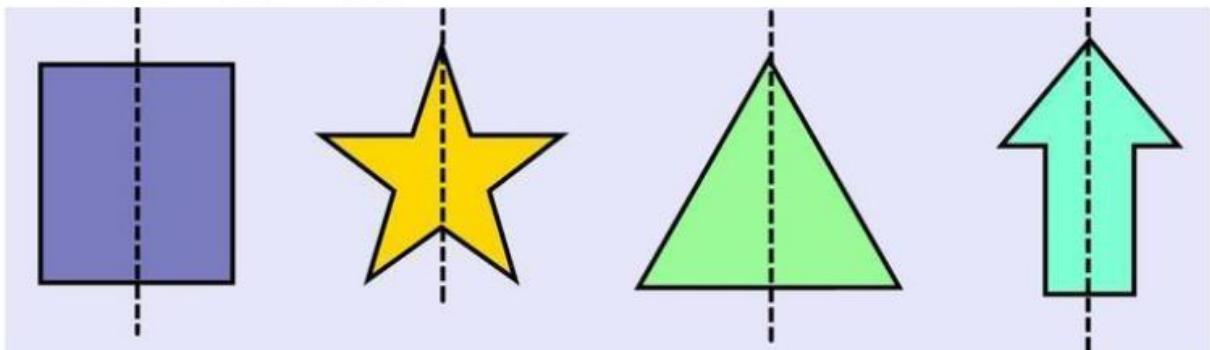
The following objects have more than one line symmetry.



Put the mirror on the half side of an object we can see complete object. It is an example of line of symmetry.



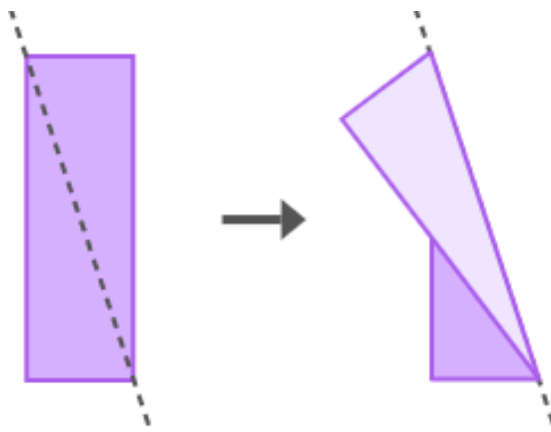
A line which divides a shape into two or more than two equal parts, is called line of symmetry.



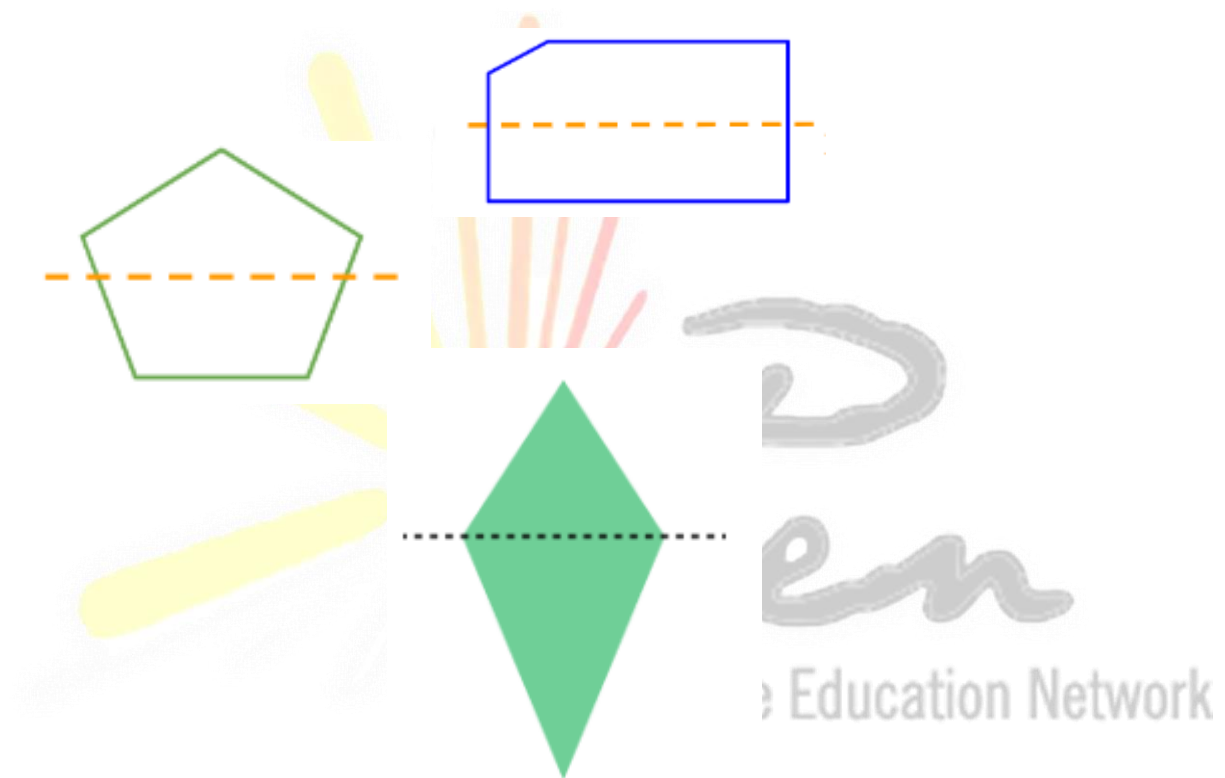
Fold the rectangle in this way that the line is not a line of symmetry.

Date: _____

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Look at these objects/shapes.



They have no line of symmetry. The shapes which have no line of symmetry are called non-symmetrical shapes.

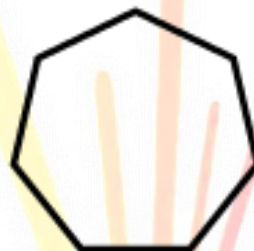
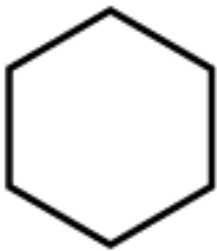
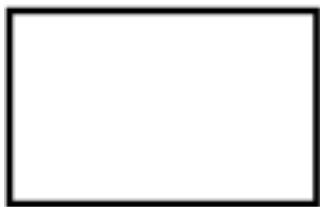
Date: _____

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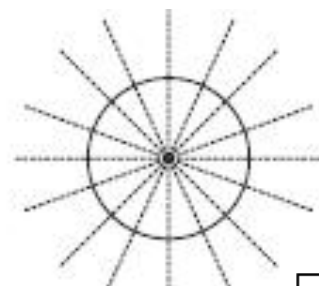
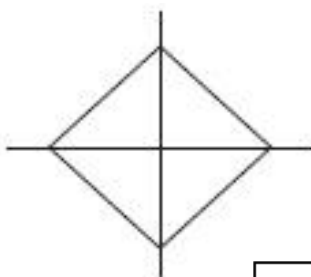
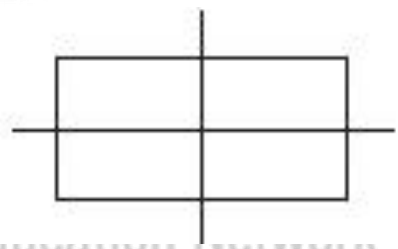
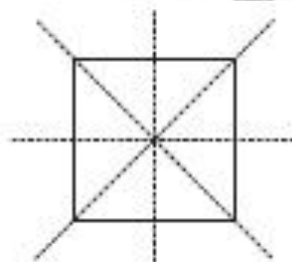
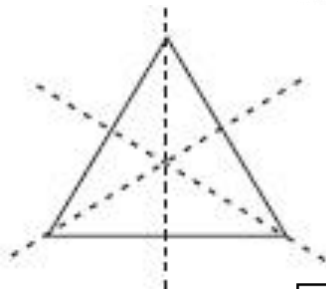
Exercise 3



1. Draw the line of symmetry in the following figures:



2. Count the number of lines of symmetry in the following figures:



Date: _____

Day: _____

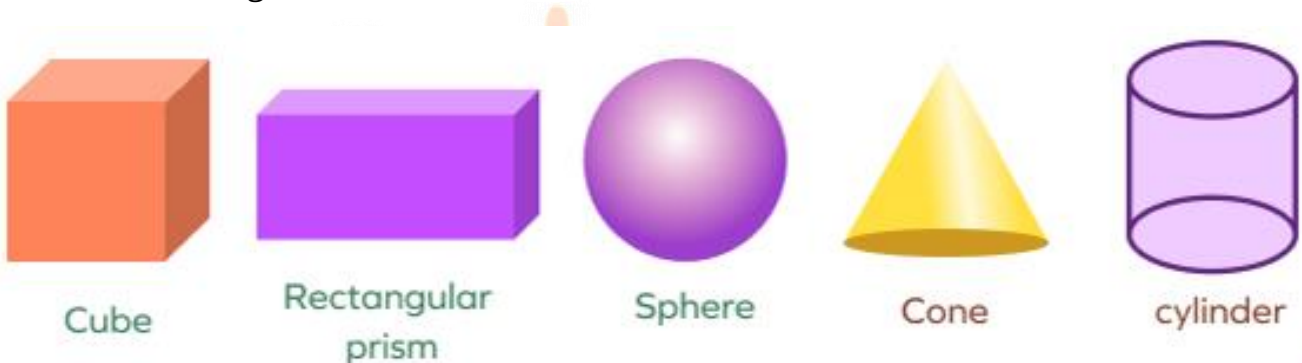
Three Dimensional Objects (3-D)

In geometry, a three dimensional shape can be defined as a **solid** figure or an object or **shape** that has three dimensions— **length**, width, and height. Three dimensional is also written as 3D and hence, these figures are commonly called 3D shapes too. All three-dimensional figures occupy space, which is measured in terms of **volume**.

All 3D shapes have three measurements: length, width, and height. Shapes look different from different directions.

Examples of Three-Dimensional Shapes

A **cube**, **rectangular prism**, **sphere**, **cone**, and **cylinder** are the basic three dimensional figures we see around us.



Real-life Examples of Three-Dimensional Shapes

3D shapes can be seen all around us. We can see a cube in a Rubik's cube and a die, a rectangular prism in a book and a box, a sphere in a globe and a ball, a cone in a carrot and an ice cream cone, and a cylinder in a bucket and a barrel around us.

Some real-life examples of 3D shapes are listed below:

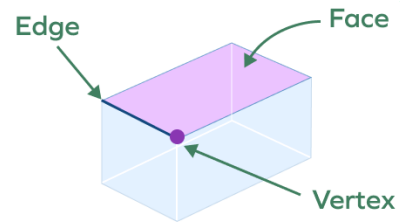
1. **Cone:** Traffic cones and birthday caps are cone-shaped.
2. **Triangular prism:** A tent is the shape of a triangular **prism**.
3. **Square pyramid:** The **pyramid** of Giza in Egypt is the shape of a square pyramid.
4. **Rectangular prism:** Boxes such as shoe boxes and cereal boxes are shaped like rectangular prisms.

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Cube:

My name is cube.
I have 6 faces.
My all faces are square.
I have 12 edges with same length.
I have 8 vertices.



Cube



Cuboid:

My name is cuboid.
I have 6 faces.
My all faces are rectangles.
I have 12 edges.
I have 8 vertices.

Rectangular Prism or Cuboid



Pyramid:

My name is pyramid.
I have 8 edges.
I have 5 faces.
I have 5 vertices.



rectangular pyramid

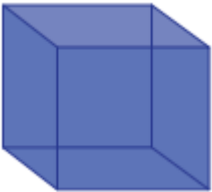
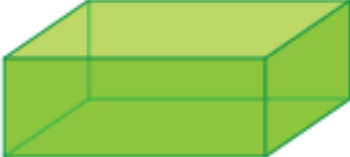
Date: _____

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Exercise 4



1. Write the required information in the following table:

Shape	Name	No. of Faces	No. of Edges	No. of Vertices
				
				
				
				
				

Date: _____

Day: _____

Knowledge Bank

Key Terminologies

- Line
- Ray
- Line Segment
- Perimeter
- Diameter
- Reflective
- Symmetry
- Cube

Important Note

Solve the review exercise given in the textbook by yourself.

Unit 7**Learning Outcomes**

After Completing this unit, you will be able to:

- Representation of data by
 - Carroll diagram
 - Tally Chart
- Read and interpret a Carroll diagram and Tally chart
- Read and interpret Picture Graph

Carroll Diagrams

It is a way to organize information according with rows and columns' characteristics.

	A	B
C		
D		

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Data Handling Definition:

Data handling is the process of gathering, recording, and presenting the data or information in a way that is meaningful to others.

Carroll Diagram

A Carroll diagram is a table used for grouping things.

Example:

Sort the following numbers in the given Carroll Diagram:

1, 2, 3, 4, 5, 6, 10, 14, 15, 20, 21, 27, 28, 35, 47, 55

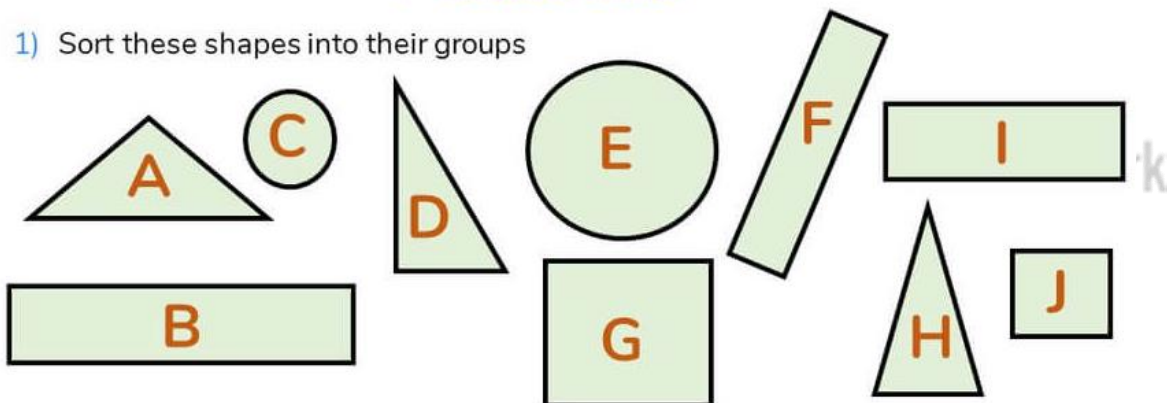
	1-digit Numbers	2-digit Numbers
Even Numbers	2, 4, 6	10, 14, 20, 28
Odd Numbers	1, 3, 5	15, 21, 27, 45, 47, 55

Carroll diagram is a diagram in which different things are sorted according to two characteristics. Figures, numbers and different things can be sorted out using Carroll diagram.

Activity #1:

Practice time

1) Sort these shapes into their groups



Rectangles	Squares	Triangles	Circles

Date: _____

Day: _____

Sort out the given numbers by Carroll Diagram

3, 8, 10, 12, 16, 18, 21, 25, 28, 33

On the Basis of Which two characteristics, can we sort these numbers?

We can use the size of the number for sorting smaller than 15 and greater than 15. Similarly, the numbers divisible by 4 and not divisible by 4.

	Numbers smaller than 15	Numbers greater than 15
Numbers divisible by 4	8, 12	16, 28
Numbers not divisible by 4	3, 10	18, 21, 25, 33

In the Carroll diagram, we can observe that:

- Numbers smaller than 15 and divisible by table of 4 are 8, 12.
- Numbers greater than 15 and divisible by table of 4 are 16, 28.
- Numbers smaller than 15 and not divisible by table of 4 are 3, 10.
- Numbers greater than 15 and not divisible by table 4 are 18, 21.

Activity #3: Put the following numbers in the correct box.

18,	9,	6,	8,	1,	3,	11,	15,	2, 10,
19,	12,	5,	16,	14,	20,	7,	4	

	Even Numbers	Odd Numbers
1 to 9		
10 to 20		

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Tally Chart:

What is a tally chart?

A **tally chart** is a simple way of recording data and counting the amount of something (frequency). To do this we **collect the data**, sort it into **categories** and **tally the marks**, to find the **frequencies**.

We represent the frequency using the five-bar gate notation.

What is Tally Mark?

Tally Marks are used to make counting easier and it is a visual representation of data.

1. The general way of writing tally marks is as a group of five lines. The first four lines are drawn vertically and the fifth one is drawn diagonally over the four lines.
2. The symbol used for the tally mark is 'I'.
3. Grouped data are arranged in a table using tally marks.

For example,

Numbers	Tally Marks
1	I
2	II
3	III
4	IIII
5	IIII I
6	IIII II
7	IIII III
8	IIII IIII
9	IIII IIII I
10	IIII IIII II



Date: _____

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Tally Marks Example

Activity #4: Look at the picture and make a tally mark of it.



Objects	Tally Marks	Numbers
Umbrella		
Santa Clause Cap		
Cap		
Birthday Cap		
Helmet		

Key Point

Marks in Tally column are equal to the number of observations in the data.

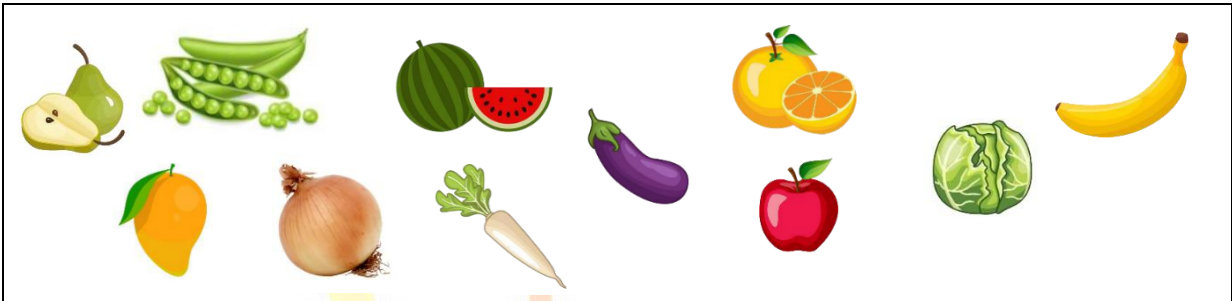
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Exercise 1



1. Show the following fruits and vegetables by using Carroll Diagram.



Vegetables	Fruits

2. Complete the Carroll diagram using the given numbers.

10, 18, 22, 25, 29, 30, 35, 37, 45, 43,
48, 52

	Even Numbers	Odd Numbers
Numbers divisible by 5		
Numbers not divisible by 5		

Date: _____

Day: _____

3. Observe the Carroll diagram and answer the questions given below.

	Numbers less than 25	Numbers greater than 25
Numbers divisible by 5	7, 14, 21	28, 35, 42
Numbers not divisible by 5	5, 9, 15, 19	27, 29, 38, 43

- (i) Find the numbers greater than 25 and divisible by 7
- (ii) Find the numbers greater than 25 and not divisible by 7
- (iii) Find the numbers less than 25 and divisible by 7
- (iv) Find the numbers less than 25 and not divisible by 7

4. A dice is rolled 20 times and the following numbers are obtained.

1, 3, 5, 6, 2, 4, 5, 3, 2, 4,
6, 3, 4,
3, 4, 2, 5, 1, 6

By using above numbers, prepare a Tally chart

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Date: _____

Day: _____

5. The following Tally chart shows the favourite sports of a group of school kids. Use the chart to complete the table and answer the questions:

Football	
Rugby	
Volleyball	
Tennis	



Use the Tally data to complete the following data table.

Football	Rugby	Volleyball	Tennis
15			

1	How many kids like Rugby the most?	
2	How many kids like the football and tennis the most?	
3	How many more kids liked tennis than rugby?	
4	How many kids were asked about their favourite sport?	

Date: _____

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What is Picture Graph?

A **picture graph** represents data with symbols and pictures. Also called a “Pictograph”, it is a method of visually representing data. To define a pictograph, we can say that it is a picture graph that includes a visual representation of data that involves symbols, icons, and pictures to depict various quantities. It’s a unique and entertaining way to present data.

Example 2: The following table shows information about the modes of transport used by students to commute to school.

Mode of transport	Number of students
Bus	      
Car	   
Walking	     
Bicycle	  
Key :  Represents 4 children	

Answer the following questions based on the information given above.

1. How many students commute by car?
2. Which is the most commonly used mode of transport?
3. Which is the least preferred mode to reach school?

Solution:

Answer 1: No. of students who commute by car = $4 \times 4 = 16$.

Answer 2: The bus is the most commonly used mode of transport.

Answer 3: The least preferred mode to reach school is a bicycle.

Date: _____

Day: _____

Exercise 2



1. Children in a school wrote down weather symbols for each day in March.

Sunny										
Cloudy										
Rainy										
Snowy										
Stormy										

1) Which weather was the most common?

2) Which weather was the least common?

3) How many days was it snowy?

4) How many days was it either rainy or stormy?

5) How many more days was it sunny than rainy?

6) How many more days was it cloudy than snowy?

7) How many days are there in March?

Date: _____

Day: _____

2. The following picture graph shows the production of vehicles in different years:
1 picture = 100 vehicles

Years	Number of Vehicles
-------	--------------------

2008	Buses	
2009	Cars	
2010	Bicycles	
2011	Trucks	
2012	Scooters	

i)	How many vehicles were manufactured in 2008?

ii)	How many cars were manufactured in 2010?

iii)	In which year, the greatest number of cars were manufactured?

iv)	In Which year, least number of cars were manufactured?

v)	In which two years, equal numbers of cars were manufactured?

Date: _____

Day: _____

Knowledge Bank

	• Carroll Diagram • Tally chart • Picture Graph • Characteristics • Interpret • Column • Characteristics • Data

Important Note

Solve the review exercise given in the textbook by yourself.

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