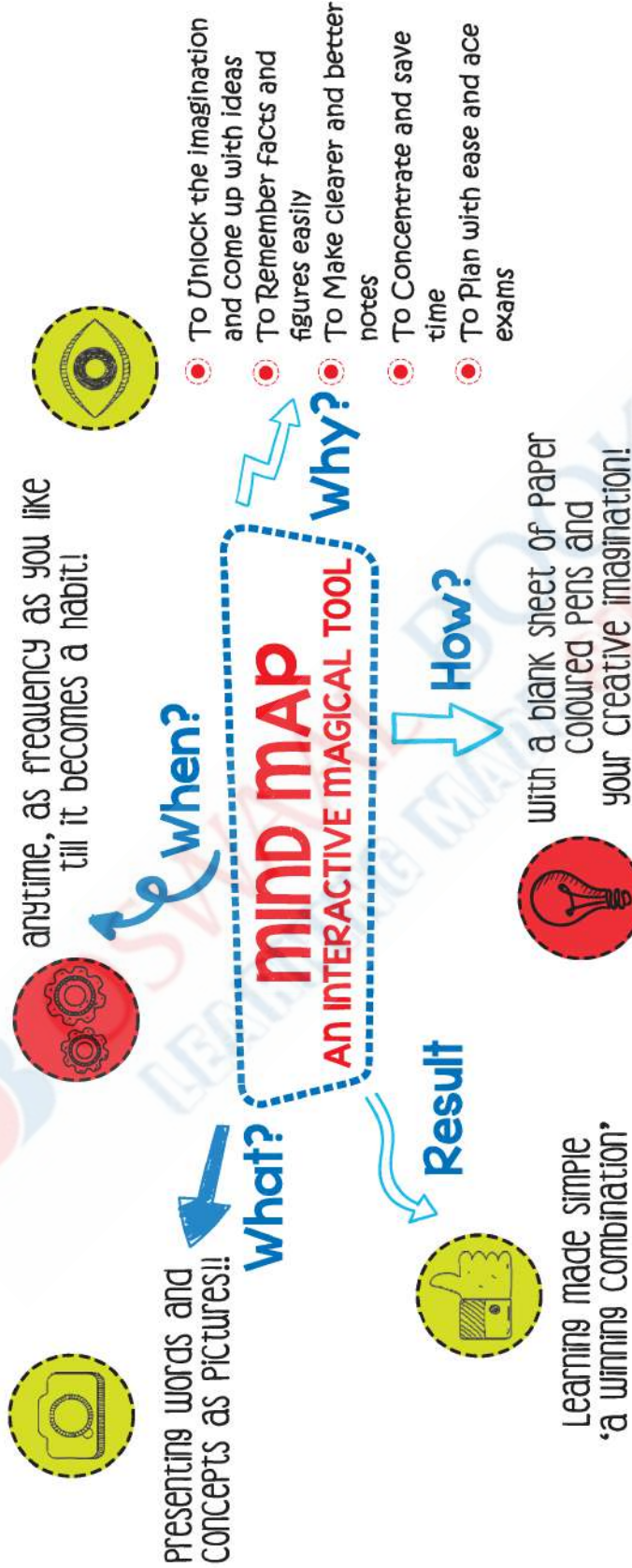


# MIND MAPS

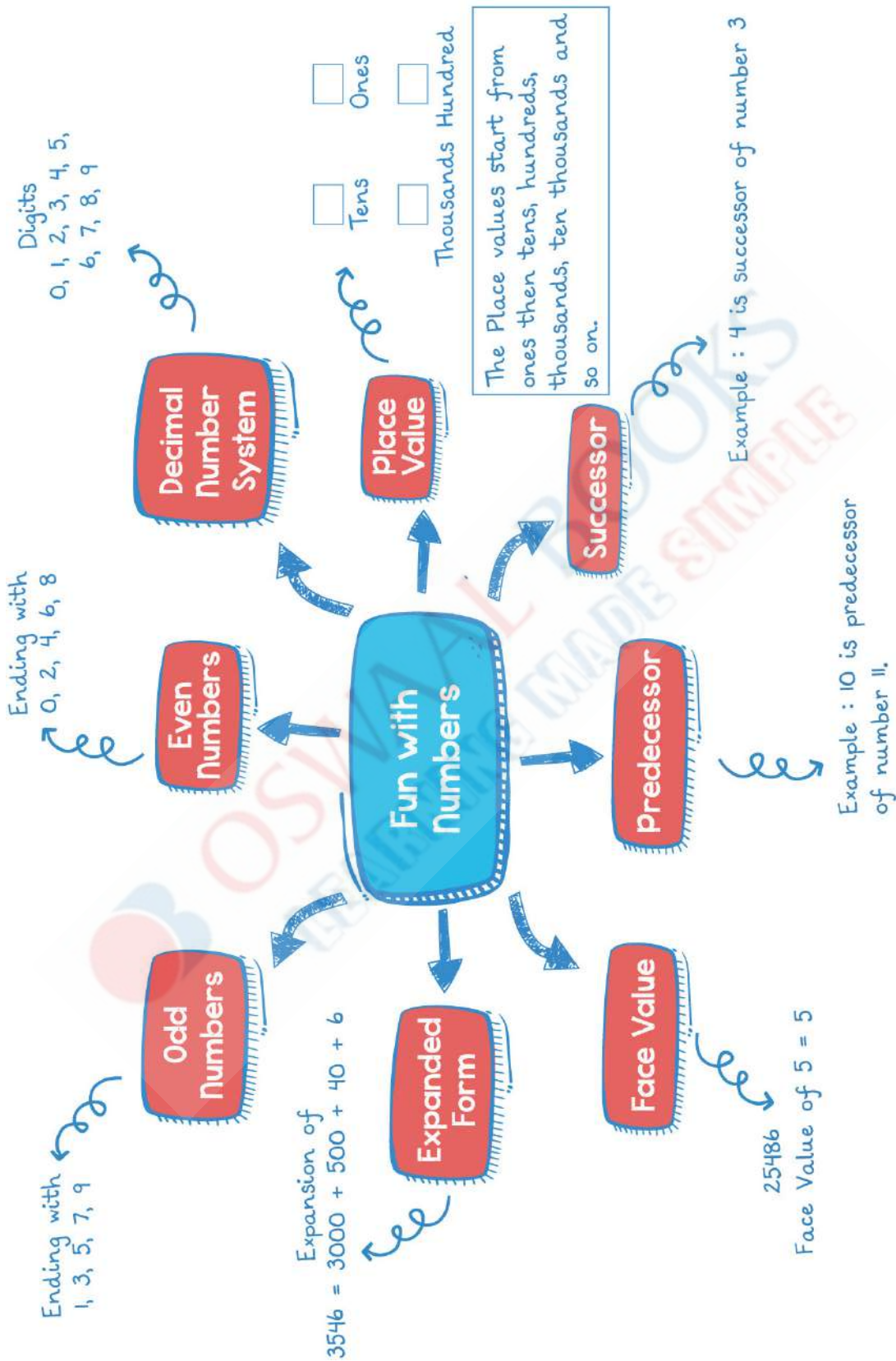
LEARNING MADE SIMPLE

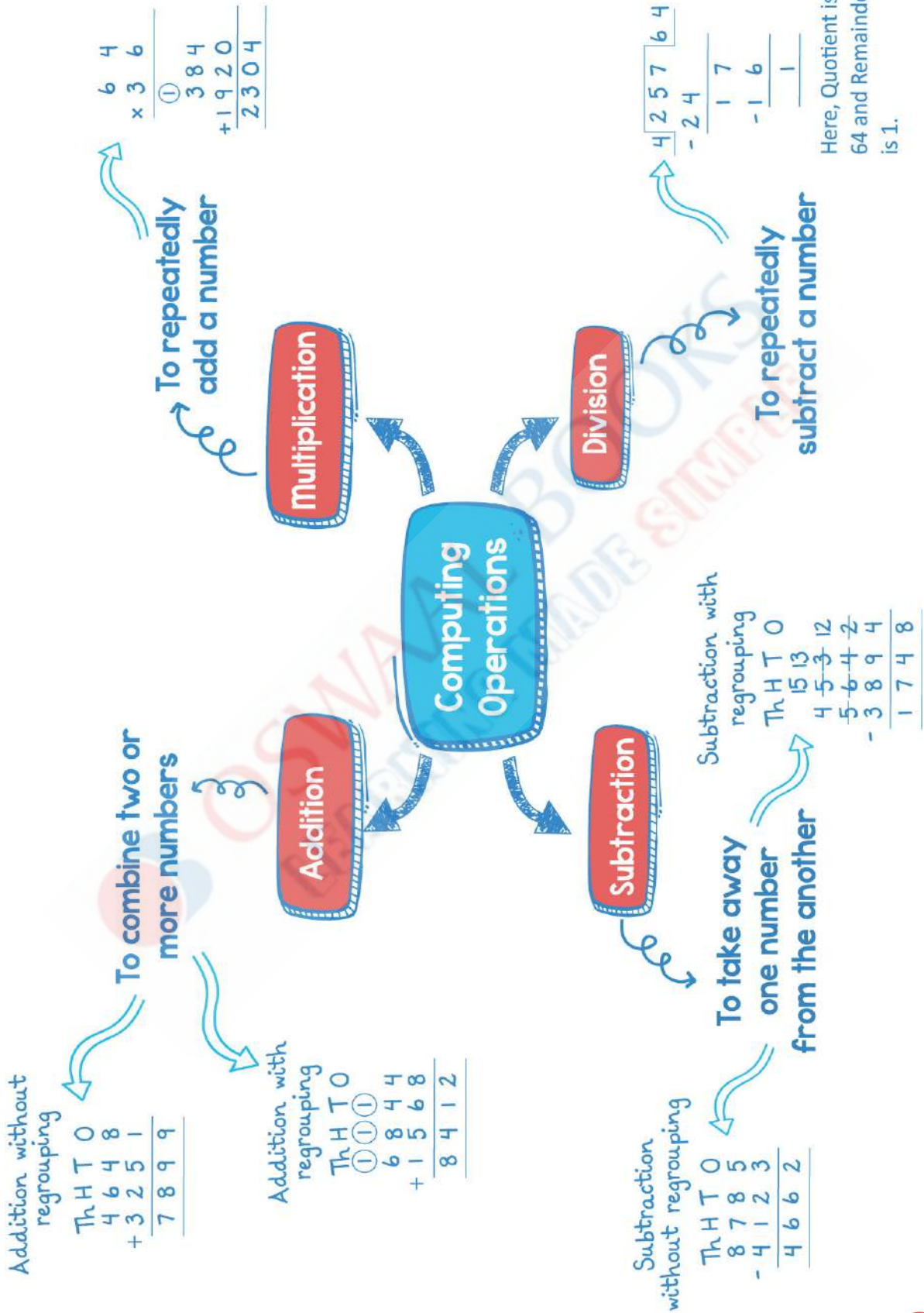


## DECODING A MIND MAP

The arrows used in the Mind Maps point to different Levels of Associations. Associations spreading out straight from the core concept are the First Level of Association. Then we have a Second Level of Association emitting from the first level and the chronology continues.







Addition without regrouping

Th	H	T	O
4	6	4	8
+	3	2	5
-----			
7	8	9	9

Addition with regrouping

Th	H	T	O
①	①	①	①
6	8	4	4
+	1	5	6
-----			
8	4	1	2

Subtraction without regrouping

Th	H	T	O
8	7	8	5
-	4	1	2
-----			
4	6	6	2

Subtraction with regrouping

Th	H	T	O
4	5	3	12
-	5	6	4
-	3	8	9
-----			
1	7	4	8

6	4
x	3
-----	
1	9
2	0
-----	
2	3
0	4

To repeatedly add a number

Multiplication

Computing Operations

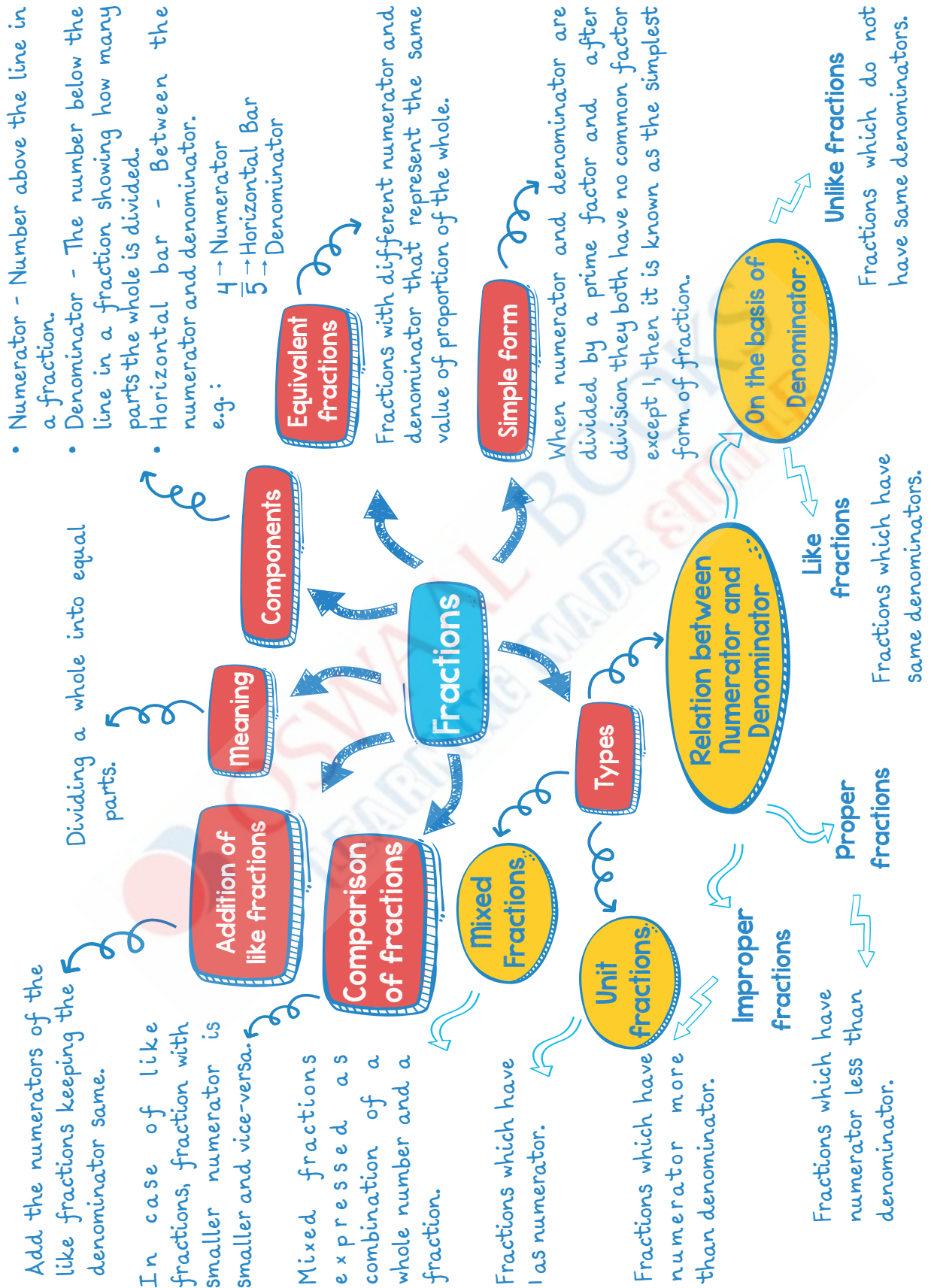
Division

4	2	5	7	6	4
-	2	4			
-----					
		1	7		
		-	1	6	
		-----			
				1	

To repeatedly subtract a number

Here, Quotient is 64 and Remainder is 1.





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1. Remove the decimal point.  
The number becomes the numerator.
2. In the denominator, write 1 followed by number of zeros equal to number of digits after decimal.
3. Reduce the fraction into simplest form.

**Conversion of Fraction into Decimal**

**Meaning**

**Example**

$$\frac{2}{10} = 0.2 \quad \frac{63}{100} = 0.63 \quad \frac{724}{1000} = 0.724$$

with 10 as denominator  
with 100 as denominator  
with 1000 as denominator

Fractions or parts which are less than one.

1. Change the fraction into equivalent fraction with denominator as 10, 100 or 1000.
2. Convert the improper fraction into mixed fraction.
3. Convert the proper or mixed fraction into decimal fraction.

**Conversion of Decimal into Fractions**

**Subtractions**

**Addition**

**Type**

**Place value chart**

**Like Decimals**

**Unlike Decimals**

**Mixed Decimals**

**Decimals**

**Fractions as Decimal**

Thousands	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths
1000	100	10	.	10	100	1000
				=0.1	=0.01	=0.001

**Meaning**

Whole number forms main part and fraction part forms decimal.

**Like Decimals**

$$\begin{array}{r} 6 \quad 12 \\ - 2 \quad 11 \\ \hline 7 \quad 3 \quad + \\ - 3 \quad 8 \quad 4 \\ \hline 3 \quad 4 \quad 7 \end{array}$$

**Unlike Decimals**

$$\begin{array}{r} 15 \quad 10 \\ 3 \quad 5 \quad - \quad 0 \quad 12 \quad 4 \quad 10 \\ 4 \quad 6 \quad + \quad - \quad 2 \quad 5 \quad - \quad 0 \\ - \quad 1 \quad 6 \quad + \quad 2 \quad 6 \quad 1 \quad 7 \\ \hline 2 \quad 9 \quad + \quad 8 \quad 6 \quad 3 \quad 3 \end{array}$$

**Unlike Decimals**

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

**Like Decimals**

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

**Example : Meaning**

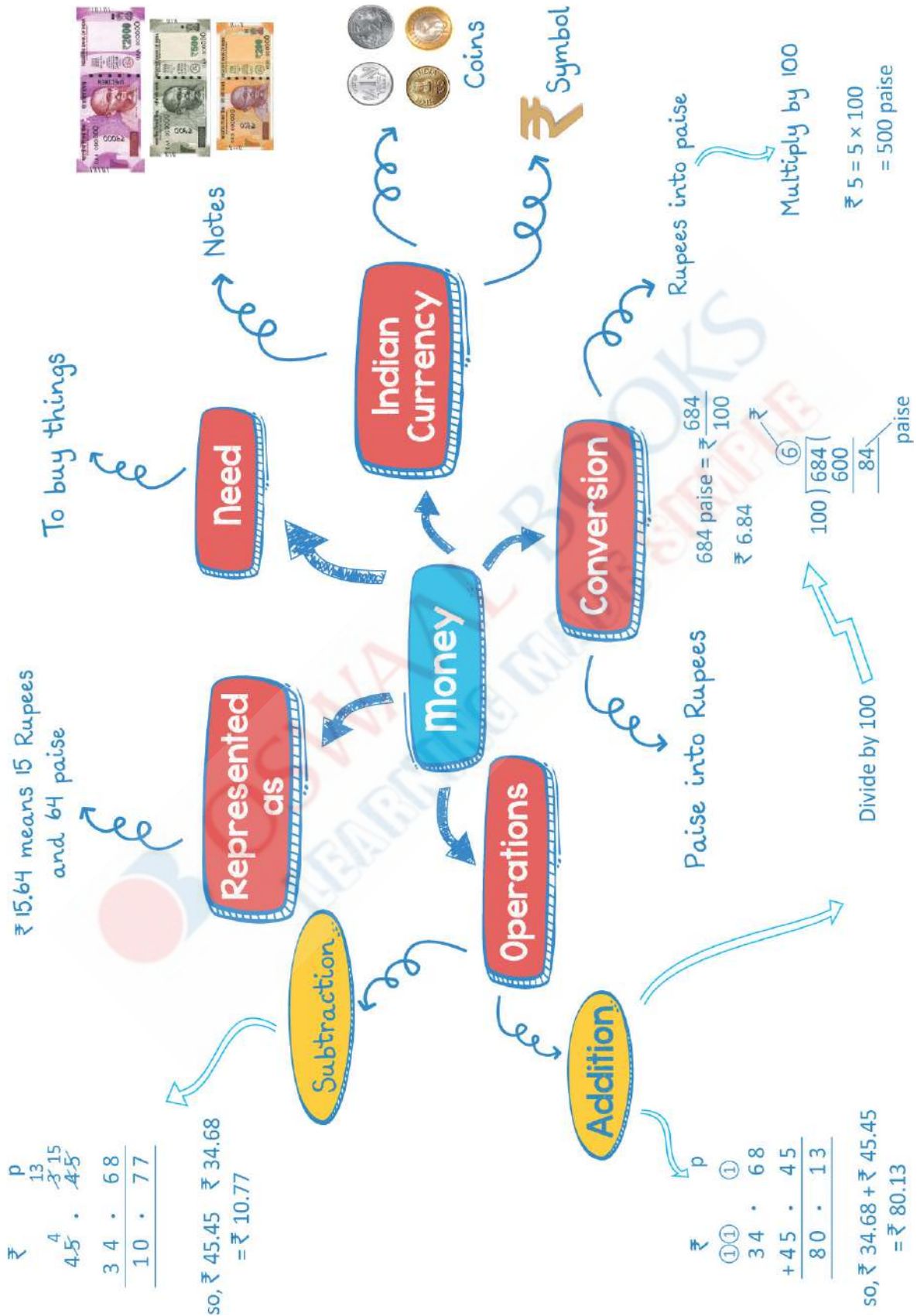
Decimal numbers which have different number of decimal places.

**Example : Meaning**

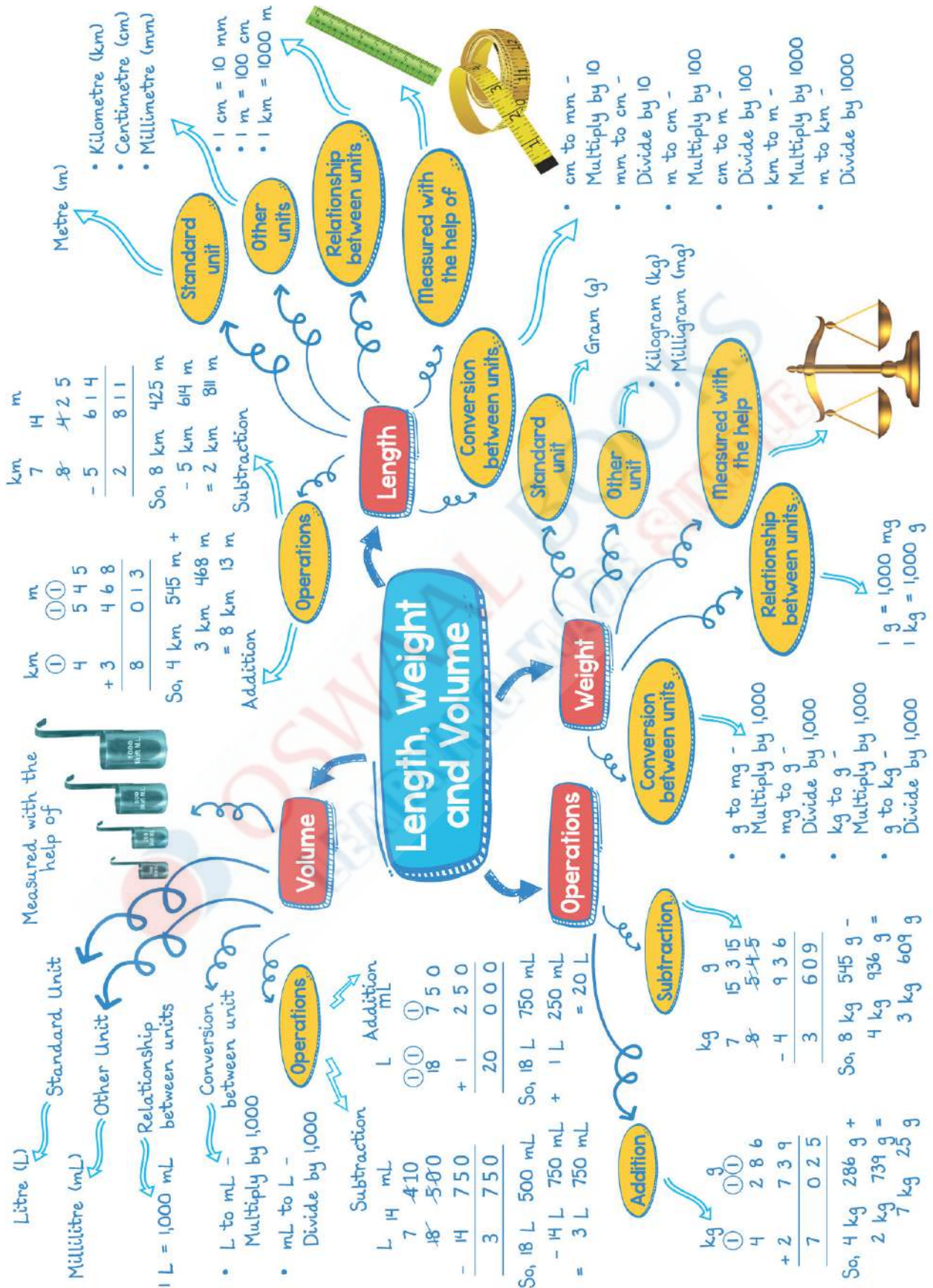
Decimal numbers which have same number of decimal places.

**Example :**

$$25 \frac{56}{1000} = 25.056$$

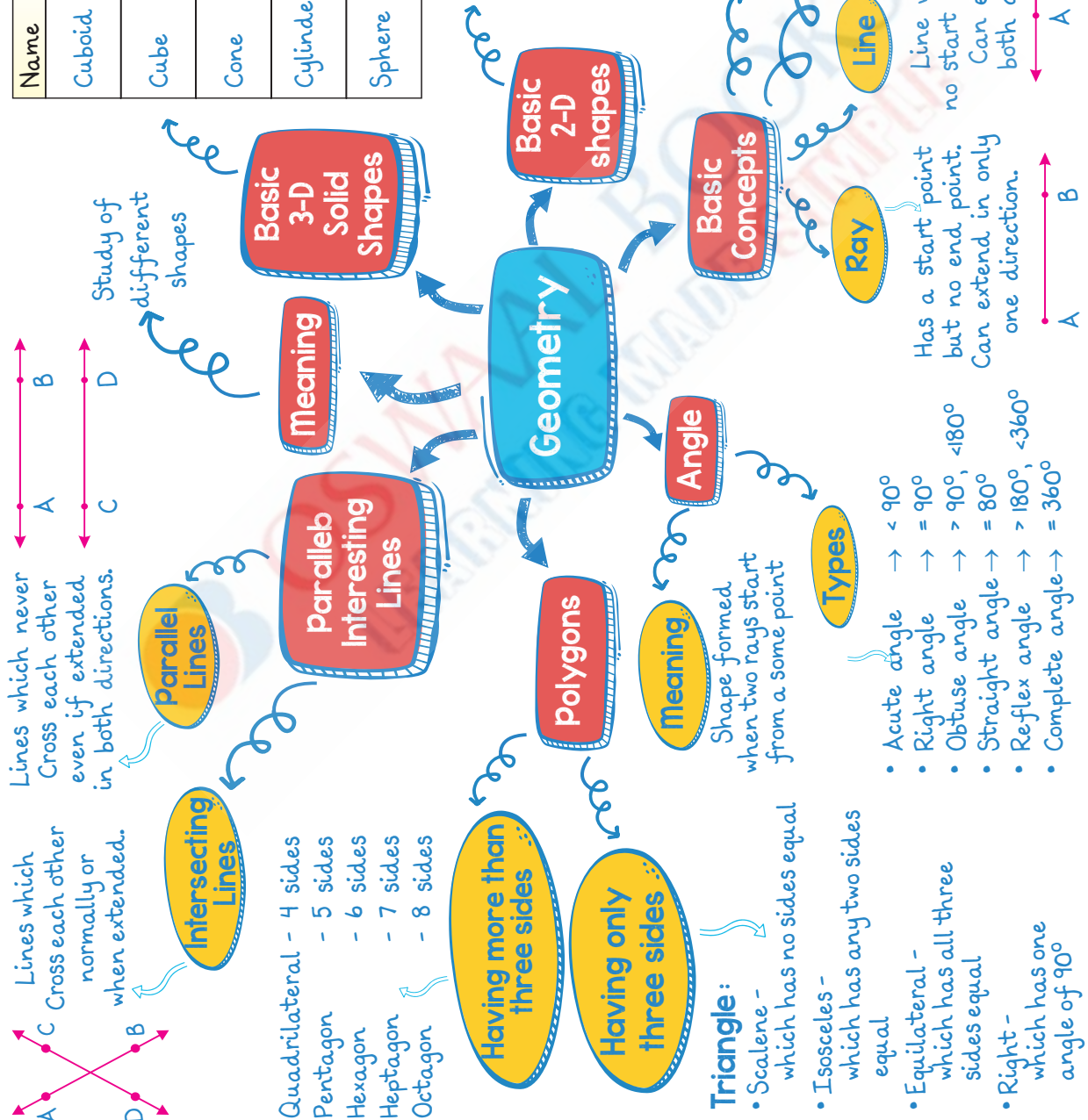






Name	Shape	Properties
Cuboid		Faces - 6 (all plane), Edges - 12 Vertices - 8, Opposite faces are matching, Opposite edges are equal
Cube		Faces - 6 (all plane), Edges - 12, Vertices - 8, All faces are matching, All edges are equal
Cone		Faces - 2 (1 plane, 1 curved), Edges - 1 Vertices - 1, Edge is circular Top is triangular with one vertex
Cylinder		Faces - 3 (1 plane, 2 curved), Edges - 2 Vertices - 0, Curved faces are matching, Both edges are circular
Sphere		Faces - 1 (curved) Edges - 0 Vertices - 0

Name	Shape	Sides	Vertices
Triangle		3	3
Rectangle		4	4
Square		4	4
Circle		0	0
Oval		0	0



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- Read data Carefully.
- Analyse and interpret data carefully.
- Select between choice of pictograph or bar graph.
- Read the key carefully.
- First step is to collect and record data.
- Use correct tally marks.

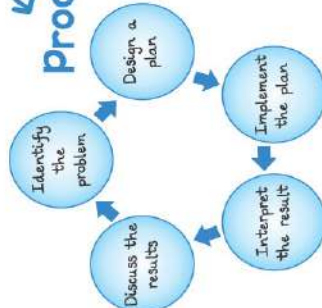
When data is presented and arranged in the form of pictures or symbols

**Example**

Names	Number of Pencils
Reet	
Jassi	
Naaz	
Azaan	
Krish	
Charles	

Key = 3 Pencils

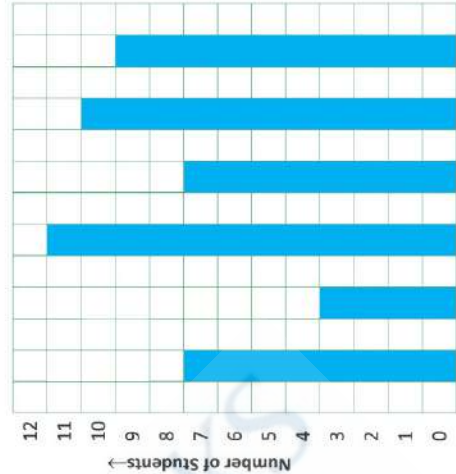
**Process**



Meaning  
Circular process of identifying and solving a problem

**Pictograph Meaning**

Meaning  
When data is represented by using bars of different heights



Class Carrom Basketball Cricket Kho-Kho Badminton  
Favorite Game →

**Tips for handling data**

**Data Handling**

**Bar graphs**

Example

Meaning  
Tally Marks are drawing combination of vertical and diagonal lines to represent a number

**Data Handling Cycle**

**(Tally Marks) Collection of data**

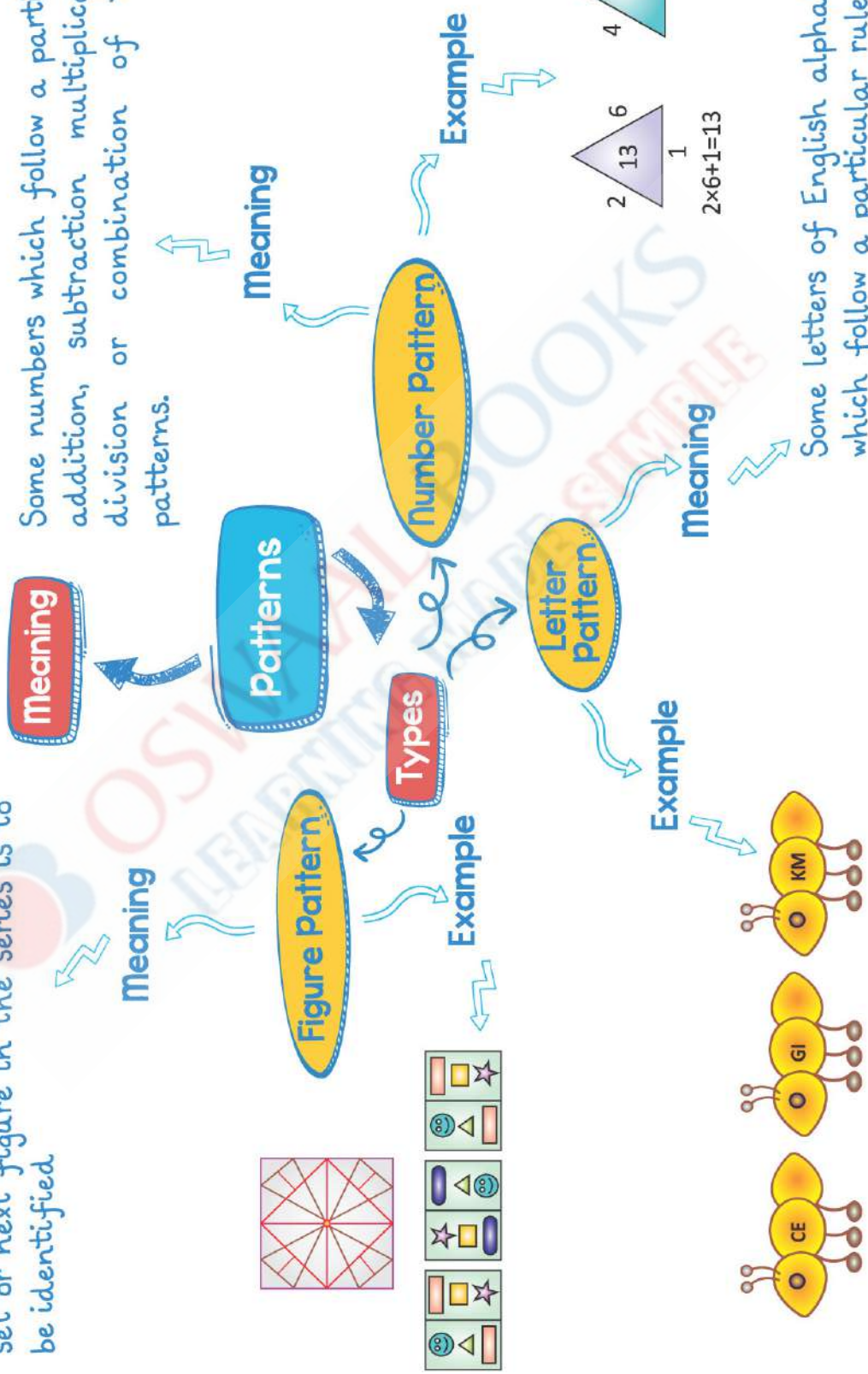
Example

Month	Tally marks for students born
January	
February	
March	
April	
May	

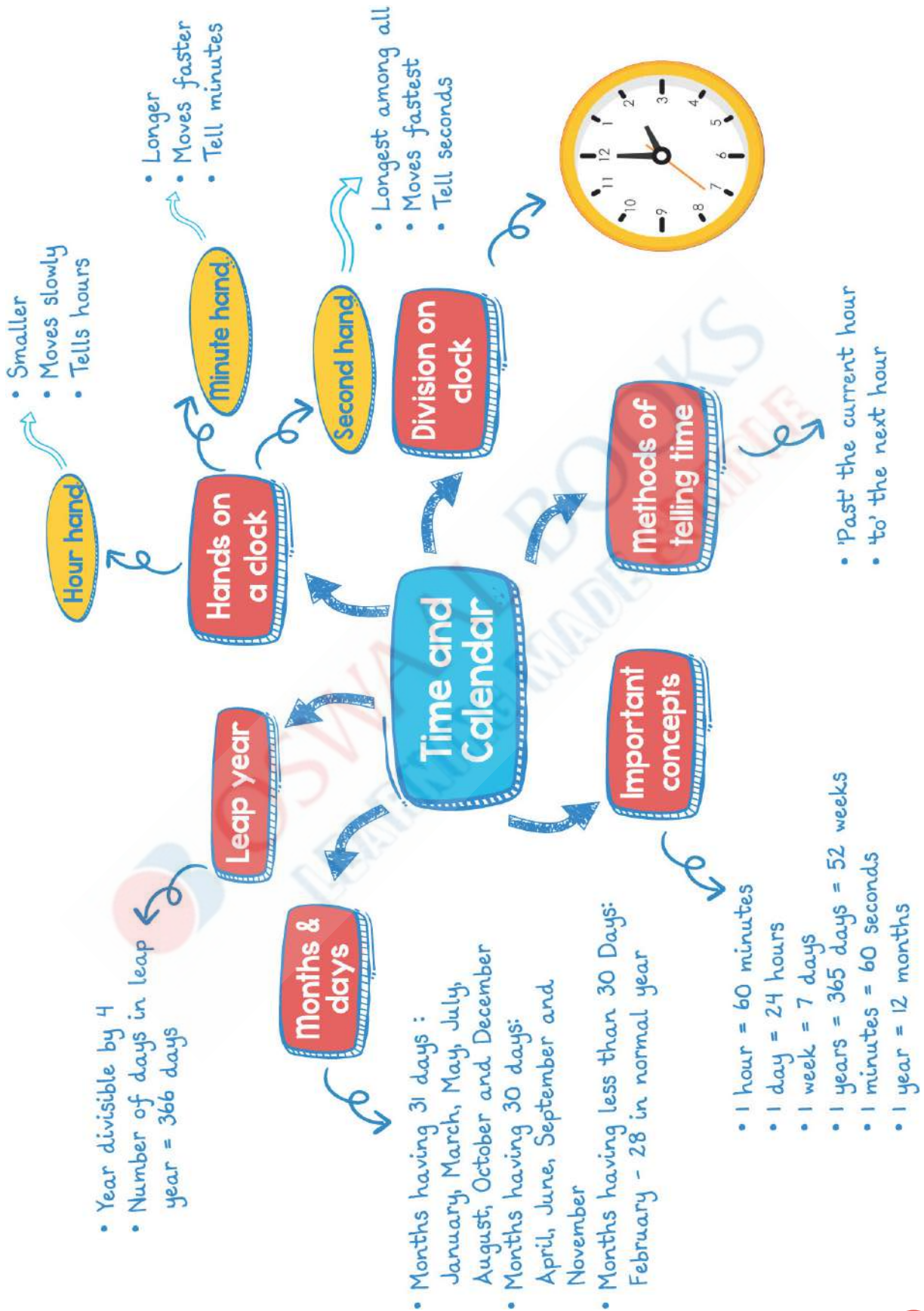
A list of numbers, letters or figures that follow a certain sequence of a certain rule.

Some numbers which follow a particular addition, subtraction multiplication, division or combination of these patterns.

Some figures which follow a particular rule. Missing figure in the set or next figure in the series is to be identified







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