## LaPIS Diagnostic Test Workbook - Mathematics

Name : Monish P

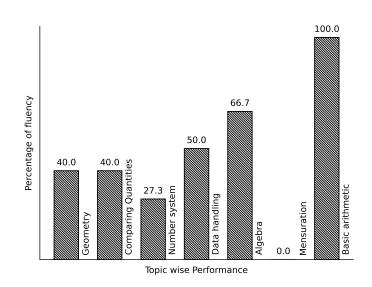
Class: 7

Section : C

School : AKV Public School

Login ID : AKV175

## Monish P's Performance Report



Score: 17/40 Percentage: 42.5%

## Monish P's Study Planner

Date	Topics Planned	Q. Numbers	Teacher Remark	Teacher Sign	Parent Sign
		Teacher's Fe	edback to Student		
	Class Teacher S	Signature	Princi	ipal Signature	

Page 2

## Mensuration

Topics to be Improved		
Perimeter of triangle		
Area	Area of rectangle	

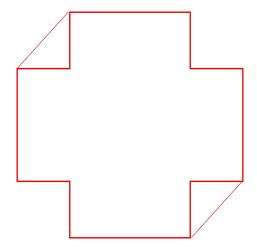
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Hi, here in this video you will learn **Perimeter** 



Question: 1

Highlight the perimeter in the given image.

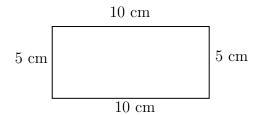


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Perimeter is the \_\_\_\_\_ ( outer / inner) boundary of the shape

Question: 2

Find the perimeter of the given figure.



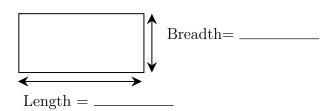
#### Answer:

Sides of the given shape = \_\_\_\_\_

Perimeter of a shape is \_\_\_\_\_ ( sum / difference) of \_\_\_\_\_ (all/ opposite) sides.

Perimeter of the given shape = \_\_\_\_\_ ..... Question: 3 Find the length of the rectangular floor if its perimeter is 60 ft and breadth is 3 ft. Answer: Perimeter = \_\_\_\_ | Breadth = \_\_\_\_ Shape of the floor is \_\_\_\_\_ and its perimeter formula is \_\_\_\_\_. Given: floor perimeter = \_\_\_\_\_\_, and breadth = \_\_\_\_\_\_. Therefore, length of the rectangular floor is \_\_\_\_\_\_. Hi, here in this video you will learn **Area** ..... Question: 4 Find which of the shaded portion in the given shape represent it's area. Answer: Given figure is \_\_\_\_\_\_ in shape. Area is the \_\_\_\_\_ ( inside/ outside/ boundary ) of a shape. Question: 5

Find the area of a rectangular garden whose dimension is 25 ft in length and 20 ft in breadth.



The garden is in shape.  Length of garden is and breadth of garde.  Formula for area of the shape =  The area of garden = x =	
Question: 6  Shade the possible dimension of the door whose a	
$\boxed{ 50 \ m \ \times \ 10 \ m } \boxed{ 25 \ m \ \times \ 25 \ m }$	$\boxed{25 \ m \ \times \ 20 \ m}$

## $\underline{Answer:}$

Door is \_\_\_\_\_ in shape. Area of the \_\_\_\_\_ shaped door is \_\_\_\_.

Dimensions	Length	Breadth	Area
$50 \text{m} \times 10 \text{m}$			
$25 \text{m} \times 25 \text{m}$			
$25 \text{m} \times 20 \text{m}$			
$30 \text{m} \times 20 \text{m}$			

Therefore, possible dimension of the door whose area is 500  $m^2$  is/are \_\_\_\_\_

## Data handling

Topics to be Improved				
Arithmetic mean, mode and median	Mean, Median and Mode			
Range	Finding the range			

Hi, here in this video you will learn Mean, Median, Mode



Question: 7 .....

Find the mode of the following data: 5, 15, 23, 5, 32, 44, 72, 55, 6, 3, 5, 65, 45, 67, 24, 19 and 98.

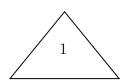
## Answer:

Mode is the number that occurs \_\_\_\_\_ (frequently / rarely) in a given list of observations.

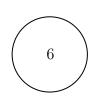
Arranging the data in ascending order: \_\_\_\_\_ occurs most number of times. Then, mode of the given data is \_\_\_\_\_

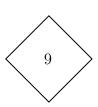
Question: 8 .....

Which shape contains median of the given data 3, 5, 6, 2, 7, 9, 6, 4 and 1









#### Answer:

Median is the \_\_\_\_\_(first/central/last) value of a data when the data is arranged in ascending or descending order.

Arrange the given data in ascending order: \_\_\_\_\_

Central value of the given data is \_\_\_\_\_ and it is the \_\_\_\_ of a data.

## $\underline{Question \colon \ 9}$

Marks scored	100	90	80	70
Number of students	4	5	2	1

 $Mean = \underline{\hspace{1cm}} , Median = \underline{\hspace{1cm}} and Mode = \underline{\hspace{1cm}}.$ 

Answer	
Answei	•

of all observation number of observation . Mean = -

Here s sum of all observation = \_\_\_\_\_\_, number of observation = \_\_\_\_\_\_

Therefore, mean = \_\_\_\_\_

Arrange the data in ascending order : \_\_\_\_\_

Here,  $median = \underline{\hspace{1cm}}$ ,  $mode = \underline{\hspace{1cm}}$ .

Hi, here in this video you will learn Range



Question: 10

Range of the data = \_\_\_\_\_\_ - \_\_\_\_\_

Answer:

The difference between highest value and lowest value is \_\_\_\_\_\_.

Example: Find the range of 10, 5, 30, 23, 54, 39 and 16

 $Highest value = \underline{\hspace{1cm}}$ ,  $Lowest value = \underline{\hspace{1cm}}$ .

 $Range = \underline{\hspace{1cm}} - \underline{\hspace{1cm}} = \underline{\hspace{1cm}}.$ 

Question: 11

Circle the correct range for the following data 31, -20, 35, -38, 29, 0, 43, -25, 51, 14, 9

$$-20+51$$
  $\frac{-38-51}{2}$   $51+38$ 

$$\frac{-38-5}{2}$$

$$51 + 38$$

.....

......

......

$$\frac{51+20}{2}$$

Answer:

Arranging the data in ascending order, \_\_\_\_\_

In the given data,

 $Highest \ value = \underline{\hspace{1cm}}$ ,  $Lowest \ value = \underline{\hspace{1cm}}$ ,  $Range = \underline{\hspace{1cm}}$ 

Question: 12

Find the range of first 10 multiple of 5.

Answer:

First 10 multiple of 5 =

Therefore,

 $Highest \ value = \underline{\hspace{1cm}}$ ,  $Lowest \ value = \underline{\hspace{1cm}}$ ,  $Range = \underline{\hspace{1cm}}$ 

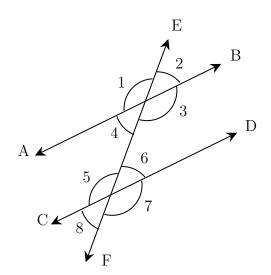
## Geometry

	Topics to be Improved			
Transversal angle made by transversal	Basics of Transversal angle			
Criteria for congruence of triangle	Idenfication of criteria of congruence of triangles			
Sum of lengths of two sides of a triangle	Sum of two sides of a triangle			
Faces vertex and edges	Idenfication of faces, edges and vertices			
Angle sum property of triangle	Angle sum property of triangle			
Types of triangle	Basics of types of triangle (sides)			

## Hi, here in this video you will learn Basics of Transversal angle



Question: 13



## Answer:

A line that intersects two or more lines at distinct points is called a \_\_\_\_\_ (transversal/Intersecting line).

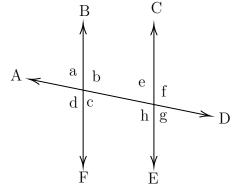
Angle that lies on different vertices and on the opposite sides of transversal is \_\_\_\_\_ angles.

Angle that lies on different vertices and on the same sides of transversal is \_\_\_\_\_ angles.

Therefore,  $\angle 1$  and  $\angle 7$  are \_\_\_\_\_

## Question: 14

Find the transversal, alternate angles and corresponding angles in a given diagram.



## Answer:

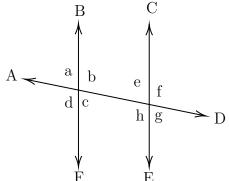
A line that intersects two or more lines at distinct points is called a \_\_\_\_\_ (transversal/Intersecting line).

In a given diagram,  $\_$  is a transversal line. (BF/AD/CE)

Alternate angles	Corresponding angles
$\angle$ a and $\angle$ g , $\angle$ b and $\angle$ h,	$\angle a$ and $\angle e$ , $\angle b$ and $\angle f$ ,

## Question: 15

Find  $\angle e$  and  $\angle g$  if  $\angle a = 30^{\circ}$ .

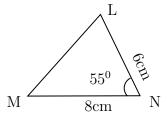


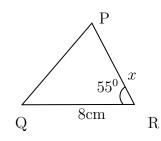
## Answer:

When parallel lines cut by a transversal,

- (i) Alternate angles are \_\_\_\_\_ (equal / not equal).
- (ii) Corresponding angles are \_\_\_\_\_ (equal / not equal).

Here, alternate an Corresponding an	~					
Hi, here in thi	s video y	ou will learn	Criteria	a of congruen	nce	
Question: 16						
Circle the groups	that contai	n congruent in	nages.			
			7			
Answer:						
Two geometrical s (identical/non-ide Example: Square	ntical) in s	hapes and size.				
Question: 17						
If the three sides of triangles are congr						triangle, then two
$\underline{Answer:}$						
Two triangle are _ Criteria for congru						
_		, ,		of the triangle are other triangle.	e	(equal/
		, ,		and ne included angle o	, ,	wo) angle between er triangle.
				es andgles and the include		
	SSS	sides	and	angles are equa	al	
	SAS	sides	and	angles are equa	al	
	ASA	sides	and	angles are equa	al	
Question: 18						
The triangles LNN	M and PRG	are congruent	by SAS cr	iteria. Then find	the side P	R





## Answer:

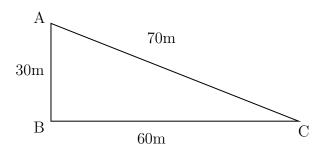
The given two triangles satisfy	criteria of congruence.
By SAS congruence criteria, $MN = $ , , _	$N = N$ and $\angle N = N$
The side MN=8 cm in $\Delta LNM$ is equal to the	side in $\triangle PRQ$
The common included angle in $\triangle$ LNM and $\triangle$	PRQ are
The side PR is equal to the side in $\_\_\_$ $\Delta I$	LNM.
Therefore, length of side $PR = $	

Hi, here in this video you will learn Sum of the length of sides of the triangle



Question: 19

Find the greatest distance to reach C from A in the given diagram.



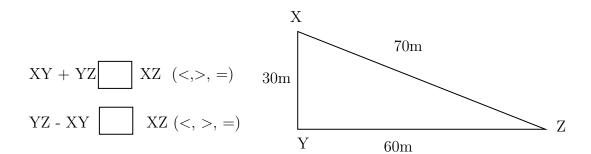
#### Answer:

ne sides of the given triangle are
ne possible way to reach point C from point A are and AB then to
$de AC = \underline{\hspace{1cm}}$
de AB + BC = + =
nerefore, the greatest distance to reach C from A in the given diagram is

## Question: 20

\_\_\_\_\_ (Sum of / Difference between) the length of any two sides of a triangle is smaller than the length of the third side.

There are sides in a triangle.	
The sum of the two sides of a triangle is than the ot	ther side of the triangle.
The difference of the two sides of a triangle is than t	the other side of the triangle.
Example: In triangle XYZ,	



Question: 21

The lengths of two sides of a triangle are 7 cm and 10 cm. Between which two numbers can length of the third side fall?

## Answer:

- 1. The sum of the two sides of a triangle is \_\_\_\_\_\_ than the third side of the triangle. Therefore, the third side should be \_\_\_\_\_ (less/ greater) than sum of other two sides. Here, sum of the two sides = \_\_\_\_ + \_\_\_ = \_\_\_ Therefore, the length of the third side is less than \_\_\_\_\_
- 2. The difference of the two sides of a triangle is \_\_\_\_\_\_ than the third side of the triangle.

  Therefore, the third side should be \_\_\_\_\_ (less/ greater) than sum of other two sides.

  Here, difference of the two sides = \_\_\_\_\_ \_\_\_ = \_\_\_\_\_

  Therefore, the length of the third side is greater than \_\_\_\_\_\_

Therefore, length of the third side is greater than \_\_\_\_\_\_ but less than \_\_\_\_\_

Hi, here in this video you will learn Basics of 3D model



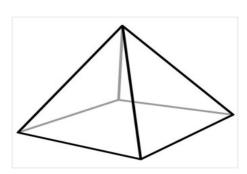
Question: 22 ......

A point at which two or more lines segments meet is called \_\_\_\_\_(Vertex/ edges/ faces).

## Answer:

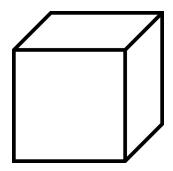
has two end point (line/line segment/ray).

A \_\_\_\_\_\_is a point where two or more line segments meet(Vertex/ edges/ faces). Mark the vertices in the diagram,



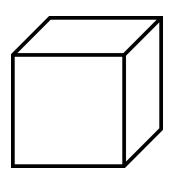
Question: 23	

Mark and find the number of vertices, edges and faces in a cube.



## Answer:

Mark the vertex, edges and faces in a cube.



Count the number	of vertex,	edges and faces in a cube.	
Cube have	vertices,	edges and	faces.

## Question: 24

How many vertices, edges and faces does dices have?



The shape of d	lice is	·	
Dices have	vertices,	$_{}$ edges and $_{}$	faces.

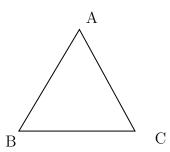
## Hi, here in this video you will learn **Angle sum property**



## Question: 25

Sum of the angles of triangle is \_\_\_\_\_.

#### Answer:



$$\angle A + \angle B + \angle C = \underline{\hspace{1cm}}$$

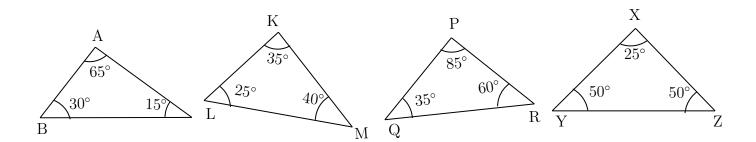
Angle sum formula =  $(n-2) \times 180^{\circ}$ , n = number of sides

Triangle has \_\_\_\_\_ sides.

Sum of the angles of triangle =  $(\underline{\phantom{0}} - 2) \times 180^{\circ} = \underline{\phantom{0}}$ 

## Question: 26

Which of the following triangle satisfy the angle sum property.



......

#### Answer:

Angle sum property of triangle: sum of the angles of a triangle is \_\_\_\_\_\_

In  $\triangle ABC$ , Sum of the angles  $= \angle A + \angle B + \angle C = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$ 

In  $\triangle PQR$ , Sum of the angles = \_\_\_\_\_ = \_\_\_\_ = \_\_\_\_

In  $\triangle KLM$ , Sum of the angles = \_\_\_\_\_ = \_\_\_\_ = \_\_\_\_

In  $\triangle XYZ$ , Sum of the angles = \_\_\_\_ = \_\_\_ = \_\_\_\_

Therefore, the triangles that satisfy the angle sum property are =  $\_$ 

## Question: 27

Find the angles of triangle, if their angles are in the ratio 8:6:4.

## Answer:

Ratio of angles in the triangle is \_\_\_\_\_

Let's consider the angles of triangle be $8x$ , and We know sum of the angles of a triangle is	
Therefore, $8x + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = 180^{\circ}$ . The value of $x = \underline{\hspace{1cm}}$ The angles of the triangle are $\underline{\hspace{1cm}}$	
	Wei
Hi, here in this video you will learn <b>Types of triangle</b>	
Question: 28	
Polygon with three sides is called as	
Answer:	
A polygon is a simple (open / closed ) curve made up of only line segments. Polygon with three sides is called  Draw a diagram of polygon with three sides :	
Question: 29	
Identify the types of triangles. $\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Answer:	
Triangle has sides.	
• Triangle with all sides are equal is called triangle.	
• Triangle with two sides of equal length is called triangle.	
• Triangle with three sides of different length is called triangle.	
Question: 30	
A park is in the shape of an isosceles triangle. If side length of the park is 30ft and 60ft. the possible length of third side of park can be	
Answer:	

The shape of the park is	·	
The shapes has	sides and this shape has	sides of equal length.
Given: length of sides of park is	S	
The possible length of third sid	e is	

## Number system

Topics to be Improved		
Operations on rational numbers	Subtraction of rational numbers, Division of rational numbers	
Exponents	Solving exponents	
Positive and negative rational numbers	Identification of positive rational numbers	
Fractions	Division of fraction, Multiplication of fractions	
Properties of integers	Associative property	
Decimals	Multiplication and division of decimals	

# Hi, here in this video you will learn **Operation on rational numbers**



Question: 31

Solve:  $\frac{-3}{3} + \frac{1}{3}$ 

#### Answer:

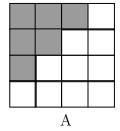
Fractions with same denominators are called \_\_\_\_\_\_ (like/ unlike) fractions. Fraction can be added only if they are \_\_\_\_\_\_ (like/ unlike) fractions.

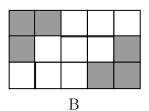
$$\frac{-3}{3} + \frac{1}{3} = \frac{-3}{3} = \frac{-3}{3}$$

......

Question: 32

Find the addition of shaded part of box A and shaded part of box B.





#### Answer:

Total number of square in box  $A = \underline{\hspace{1cm}}$ . Number of shaded square in box  $A = \underline{\hspace{1cm}}$ .

Shaded part of box A in fraction = \_\_\_\_\_ Total number of square in box  $B = \underline{\hspace{1cm}}$ . Number of shaded square in box  $B = \underline{\hspace{1cm}}$ . Shaded part of box B in fraction = \_\_\_\_\_. Shaded part of box A + Shaded part of box B =  $\_\_\_$  +  $\_\_\_$  =  $\_\_\_$ Question: 33 ...... Find the missing values in the given figure. Answer: One litre =  $\_$  ml $\frac{7}{10}$  of one liter  $=\frac{7}{10}$  x \_\_\_ ml = \_\_ ml Given:  $1 = \frac{7}{10} +$ \_\_\_\_\_ Transposing  $\frac{7}{10}$  to other sides,  $1 = \frac{7}{10} =$ \_\_\_\_\_\_ Therefore, result is \_ Hi, here in this video you will learn Exponents and power Question: 34 ..... Find the exponential form of 1000. Answer: (Exponents/Base) tells us how many times a number should be multiplied by itself to get the desired result. Exponents is also called as \_\_\_\_\_ (Base / Power). 1000 can be written as =  $10 \times$  \_\_\_\_  $\times$ 10 is raised to the power of  $\underline{\phantom{a}} = (10)^{\underline{\phantom{a}}}$ Question: 35

Find the value of  $(-2)^3$ .

## Answer:

\_\_\_\_\_ (Exponents/Base) tells us how many times a number should be multiplied by itself to get the desired result.

In this exponential form 
$$(-2)^3$$
, base = \_\_\_\_, power = \_\_\_\_.  
 $(-2)^3$  = \_\_\_\_ × \_\_\_ = \_\_\_.

## Question: 36

- (i) Tenth power of 100 is  $((10)^{100})$  or  $(100)^{10}$ .
- (ii) k is raised to the power of 5 is  $((k)^5)$  or  $(5)^k$ .

## Answer:

Exponential form = (Base)—

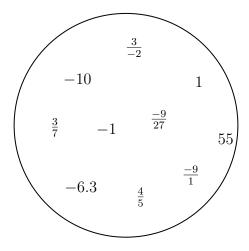
- (i) Tenth power of 100: Base = \_\_\_\_, Power/Exponents = \_\_\_\_, exponential form = \_\_\_\_.
- (ii) k is raised to the power of 5: Base = \_\_\_\_, Power/Exponent = \_\_\_\_, exponential form = \_\_\_\_.

# Hi, here in this video you will learn **Positive and Negative rational numbers**



#### Question: 37

Segregate positive and negative rational number.



## Answer:

	perator and the denomination (positive/negative) ration		l number are negativ	ve, then it is
In the given circle, pos	itive rational numbers a	re	_ and negative ratio	onal numbers are
$\frac{-3}{-4}$ is a	_ (positive /negative / n	either positive no	or negative) rational	l number.
Answer:				
-3 is a	$_{-}$ number, $-4$ is a $_{}$	numb	er.	
Division of $\frac{-3}{-4} = \square$	_ number, -4 is a and this	rational nu	ımber.	
(Positive /	Negative / Neither posit	tive nor negative	rational number)	
Question: 39				
	ive rational number and tive/ Negative/ neither	0		
$\underline{Answer:}$				
Examples for negative	rational numbers: rational numbers: er × Negative rational r al number		_ × =	and this is
Hi, here in this vi-	deo you will learn D	oivision on fr	eactions	
Question: 40				
	contains the improper fr			
	$ \begin{array}{c c} \hline 10 \\ \hline 35 \end{array} $			
$\underline{Answer:}$				
$5\frac{2}{7}$ is a Here, 5 is	(proper/mixed) fraction	n. _ and 7 is		
	cion into improper fracti			tor
	$5\frac{2}{7} = (\times -$		=	

Question: 41

Solve:  $\frac{1}{3} \div \frac{14}{3}$ 

## Answer:

To divide a fraction by another fraction, multiply the dividend by  $\_\_\_$  ( same / reciprocal) of the divisor. Here, dividend =  $\_\_$  and divisor =  $\_\_$ .

$$\frac{1}{3} \div \frac{14}{3} = \frac{1}{3} \times \boxed{\square} = \boxed{\square}$$

......

Question: 42

Find the half of the fraction  $\frac{12}{40}$ .

#### Answer:

To find half of a number, divide the number by \_\_\_\_\_

$$\frac{12}{40} \div \underline{\phantom{0}} = \frac{12}{40} \times \underline{\phantom{0}} = \underline{\phantom{0}}$$

Then the answer is \_\_\_\_\_

Hi, here in this video you will learn Multiplication on fractions



Question: 43

Fill the boxes

$$2 + 4 + \frac{6}{2} = \frac{2}{\Box} + \frac{4}{\Box} + \frac{3}{\Box} = \frac{\Box}{\Box} = 9$$

## Answer:

The whole number can be expressed in fraction with denominator equal to  $\_\_\_$  (zero/one). Therefore, 2 can be written as  $\_\_\_$  in fraction.

4 can be written as \_\_\_\_\_ in fraction.

$$2 + 4 + \frac{6}{2} = \frac{2}{1} + \frac{4}{\square} + \dots = \frac{2}{1} + \frac{4}{\square} + \frac{3}{\square} = \frac{\square}{\square} = 9$$

Question: 44	
--------------	--

There are 400 students in a school. Find the number of girls, if three sixteenth of the students are girls.

## Answer:

Total number of students =  $\_$ 

Fraction of students who are girls = \_\_\_\_\_

Number of girls 
$$=$$
  $\times$   $=$   $=$   $=$ 

Question: 45

Solve:  $2\frac{7}{4} \times \frac{2}{3}$ 

## Answer:

 $2\frac{7}{4}$  is a \_\_\_\_\_ (proper / mixed) fraction. Here, 2 is \_\_\_\_\_, 7 is \_\_\_\_ and 4 is \_\_\_\_.

To convert mixed fraction into improper fraction,  $\frac{\text{(Whole} \times \underline{\hspace{1cm}}) + \text{Numerator}}{\text{Denominator}}$ Improper fraction of  $2\frac{7}{4} =$ 

$$2\frac{7}{4} \times \frac{2}{3} = \boxed{ } \times \frac{2}{3} = \boxed{ }$$

Hi, here in this video you will learn Properties of integers



Question: 46

Match the following based on the properties of integers

i	Closure
ii	Associative
iii	Commutative
iv	Identity

a	(5+7)+3=3+(7+5)
b	21 + 0 = 21
С	15 + 17 = 32
d	1 + 99 = 99 + 1

## Answer:

(i) Closure property:

The sum of integers is always \_\_\_\_\_(integer / not a integer).

Therefore,  $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$ 

From the given option \_\_\_\_\_\_ satisfies the closure property.

(11)	Associative property: Rearranging the parentheses ( bra Therefore, $(a + b) + c = $ From the given option				n.
(iii)	Commutative property: Changing the order of the addend				
	Therefore, $a + b = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$ From the given option $\underline{\hspace{1cm}}$				
(iv)	Identity property : The sum of	and a	ny number always retu	ırns same number.	
	Therefore, $a + \underline{\hspace{1cm}} = a$ From the given option $\underline{\hspace{1cm}}$	satisfie	es the Identity property	7.	
	stion: 47 the operations in which commuta				
	Addition Subt	traction	Multiplication	Division	
Ans	wer:				
For a	mmutative property, changing the (does not/ does) chang my two integers, commutative property for addition commutative property for multiplication	te the result.  perty holds to is cation is	rue for		
	<u>stion: 48</u>				
	additive identity and multiplicative wer:	e identity the	e same! (Yes or No)		
Ident The I	ity property holds only for Identity property for addition is Identity property for multiplication efore, additive identity is	n is	_ and additive identity and multiplica	tive identity is	
	here in this video you will le				 
Que	stion: 49				
Shad	e 0.4 part of the given shape.				

Answer:
There are boxes.  0.4 can be expressed as in fraction  This fraction represents parts out ofequal parts.  So, we need to shade boxes out ofboxes.
<u>Question: 50</u>
Solve the following.
(i) $0.4 \times 1.2$
(ii) $0.48 \times 1.2$
Answer:
<ul> <li>(i) 0.4 × 1.2:     Multiplication of 0.4 × 1.2 assuming there is no decimal point is     The number of digits after decimal point in 0.4 is and 1.2 is     Total digits after decimal point in the product of two numbers is     Count that digits from the right towards left and place the decimal point, the result is     (ii) 0.48 × 1.2:         Multiplication of 0.48 × 1.2 assuming there is no decimal point is         The number of digits after decimal point in 0.48 is and 1.2 is         Total digits after decimal point in the product of two numbers is         Count that digits from the right towards left and place the decimal point, the result is     </li> </ul>
Question: 51
One box of chocolate costs Rs.20.10. What is the cost of 15 chocolates, if a box contains 10 chocolates?
Answer:
One box contains chocolates. The cost of one box is Then cost of one chocolate = $\div$ =
(i) Total digits after decimal point in decimal number =
(ii) Divide the two numbers assuming there is no decimal point.
$\frac{2010}{15} = $
(iii) Place the decimal point after digits counting from the right in the quotient after division.

Then the cost of one chocolate is		
The cost of 15 chocolates = cost of one chocolate $\times$ = x	=	_

## Hi, here in this video you will learn **Operation on rational numbers**



Question: 52

Fill in the boxes to make the given expression correct.

$$\frac{1}{5} \div \frac{14}{15} = \frac{1}{\square} \times \square$$

Answer:

When any fraction is divided by a fraction, we multiply the dividend by the \_\_\_\_\_\_(same/reciprocal) of the divisor.

Here, dividend = and divisor = =

$$\frac{1}{5} \div \frac{14}{15} = \frac{1}{\square} \times \square = \square$$

Question: 53

Solve:  $\frac{18}{7} \div 0.6$ 

Answer:

Fraction form of  $0.6 = \underline{\hspace{1cm}}$ ,

when any fraction is divided by a fraction, we multiply the dividend by the  $\_$  (same/reciprocal) of the divisor. Here, dividend =  $\_$  and divisor =  $\_$ .

$$\frac{18}{7} \div \boxed{\square} = \frac{18}{7} \times \boxed{\square} = \boxed{\square}$$

Question: 54

Find the missing number in the expression  $\frac{8}{3} \div \frac{16}{\Box} = 2$ 

$$\frac{8}{3} \div \frac{16}{\square} = 2$$

$$\frac{8}{3} \times \frac{\square}{16} = 2$$

Transposing 8/3 to RHS,

$$\frac{\square}{16} = 2 \square \frac{8}{3}$$

$$\frac{\square}{16} = 2 \times \square$$

$$\frac{\square}{16} = \square$$

$$\frac{\square}{16} = \square$$

Transposing 16 to other side, the result is \_\_\_\_\_

## Comparing Quantities

Topics to be Improved						
Percentage	Basic of percentage					
Profit and loss	Prediction of loss and profit					
Conversion of fraction into percentage	Conversion of fraction into percentage					

Hi,	here	in	this	video	you	will	learn	Basics	of	percent	age
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Question: 55

2% can be written as

#### Answer:

Percentages are numerators of fractions with denominator\_\_\_\_\_

$$2\% = \frac{\square}{\square}$$

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Question: 56

Arun attended the LaPIS test for 100 marks and got 75% marks. What is the mark scored by Arun?

#### Answer:

Arun attended LaPIS test for \_\_\_\_\_ marks. He got \_\_\_\_ marks.

75 % can be written in fraction form

Then the mark scored by Arun = Total mark  $\times$  75% = \_\_\_\_  $\times$  \_\_\_ = \_\_\_\_

Question: 57

There are 25 apples in a basket in which 10 of them are rotten. Find the percentage of rotten apples.

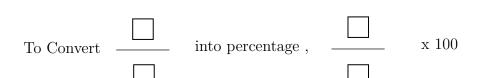
#### Answer:

There are \_\_\_\_\_ apples in a basket.

Number of rotten apples are
Fraction form of rotten apples in a basket =
Convert it into a percent= x% =
Hi, here in this video you will learn <b>Profit and Loss</b>
Question: 58
Anu bought a book for ₹100 and sold it for ₹150 . Here, cost price of a book is and selling price of a book is
$\underline{Answer:}$
The price that is paid to buy or purchase a goods is price and the price at which goods are sold is called price.  Therefore, cost price of a book =, selling price of a book =
$Question: \ 59$
You bought a bat for ₹50 to play cricket. After one week, you sold that bat for ₹150. Is that a profit or loss for you?
Answer:
In profit, selling price cost price. $(<,>,=)$ In loss, selling price cost price. $(<,>,=)$ Cost price of a bat =, selling price of a bat = Cost price is (greater / smaller) than selling price. Then it is
Question: 60
Janu bought a smart phone for Rs.19,499 and after one week she sold her phone at a loss of Rs.2500 . Find the selling price of the phone.
$\underline{Answer:}$
Cost price of a smart phone =, loss = Loss = =
Therefore, selling price =
Hi, here in this video you will learn Converting fraction into percentage
$Question: \ 61$

Complete the box in the given equation.
$5\% = \frac{5}{\square}$
Answer:
Percentage are the fraction with the denominator
Therefore, $5\%$ can be expressed as
Question: 62         Mark the correct conversion form of fraction $\frac{1}{2}$ to percentage.         (i) $\frac{1}{2} \times \frac{50}{50} = \frac{50}{100} = 50\%$ (ii) $\frac{1}{2} \times \frac{100}{100} = \frac{100}{200} = 200\%$ (iii) $\frac{1}{2} \times 100 = \frac{100}{20} = 50\%$ Answer:         To convert fraction into percentage, the value of
Therefore, correct conversion form is
Question: 63
Find the percentage of shaded part of square.
Answer:
The square shape is divided into parts.  Number of shaded part of square is

Shaded part of square in fraction is \_\_\_\_\_



## Algebra

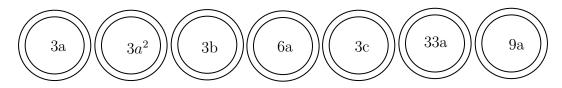
	Topics to be Improved
Addition and subtraction of algebraic expressions	Like terms and Unlike terms
subtraction of algebraic expressions	subtraction of algebraic expressions

Hi, here in this video you will learn Addition on expression



Question: 64

Shade the like terms.



## Answer:

Given terms are \_\_\_\_\_

Two or more term have \_\_\_\_\_ ( same/ different) variables is called like terms.

Here, like terms are \_\_\_\_\_\_.

Question: 65

Complete the expression  $7r^2 + r \Box - 2 \Box = \underline{\phantom{a}} r^2$ 

Answer:

\_\_\_\_\_ (Like / Unlike) terms can be added or subtracted.

$$_{7r^2+ r} \square_{-2} \square = (7 + \_ - 2)_{r^2} = \_$$

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Question: 66

Sam have 3a chocolates and 9y icecream. Ram have 7a chocolates and 5y icecream.

- (i) Total chocolates Ram and Sam have: \_\_\_\_\_.
- (ii) How many icecreams Sam have more than Ram:

Answer:

	Chocolates	Icecream
Sam		
Ram		

(i) Total chocolates Ram and Sam have:		
$Ram's chocolate + Sam's chocolates = \underline{\qquad}$	+	=

(ii)	How	many	icecreams	s Sam	have more	than Ram:				
				icecrea	m	$_{-}$ icecream =	=	 	= .	

Hi, here in this video you will learn Subtraction on expression



Question:	67
671165111111	• • • •

Find the sum of two expressions a + b + c and b + c + d

## Answer:

The given two expressions are and	
The two terms will get added only if they are( Like/ Unlike) term	ms
The sum of two expressions $=$ $\underline{\hspace{1cm}}$ $+$ $\underline{\hspace{1cm}}$ .	
The answer is	

Question: 68

	School A	School B
Number of boys	100b	250b
Number of girls	150g	200g
Number of teachers	25t	45t

- (i) Total number of boys in school A and B is \_\_\_\_\_
- (ii) Total number of students in school B is \_\_\_\_\_
- (iii) How many more teachers are there in school B than school A? \_\_\_\_\_

(i) Number of boys in school  $A = \underline{\hspace{1cm}}$ ,

Number of boys in school B = \_\_\_\_\_.

Total number of boys in school A and school B is  $\_\_\_$  +  $\_\_\_$  =  $\_\_\_$ .

(ii) Number of boys in school  $B = \underline{\hspace{1cm}}$ ,

Number of girls in school  $B = \underline{\hspace{1cm}}$ .

Total number of students in school B is  $\_\_\_$  +  $\_\_\_$  =  $\_\_\_$ .

(iii) Number of teachers more in school B than school A = Teachers in school B - Teachers in school A =  $\_\_$ 

Question: 69

Solve the following:

$$\begin{array}{ccc}
 & 3a - 5b \\
 & 5a - 7b \\
 & -2a - \underline{\hspace{1cm}}
\end{array}$$

Answer:

The two terms will get added only if they are \_\_\_\_\_ (like/unlike) terms.

$$\begin{array}{ccc}
 & 3a - 5b \\
 & 5a - 7b \\
 & -2a - \underline{\hspace{1cm}}
\end{array}$$