# LaPIS Diagnostic Test Workbook - Mathematics

Name : Janapriyan R

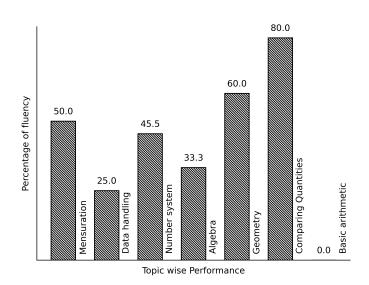
Class: 7

Section : A

School : AKV Public School

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# Janapriyan R's Performance Report



Score: 19/40 Percentage: 47.5%

# Janapriyan R'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	

# Basic arithmetic

Topics to be Improved				
Types of angles	Identification of types of angles			
LCM	Finding LCM			

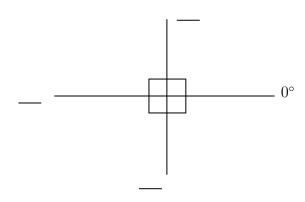
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## Hi, here in this video you will learn Types of Angles



Question: 1

Find the angles.



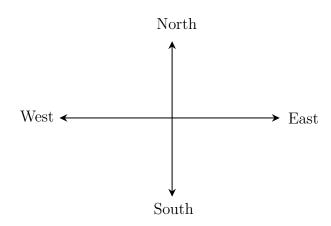
### Answer:

The angle ranges from \_\_\_\_° to \_\_\_\_°.

The angle perpendicular to  $0^{\circ}$  is \_\_\_\_°.

The straight line measures  $\_\_\_^{\circ}$ .

### Question: 2



The angle formed between the directions

- (i) West and East is \_\_\_\_\_ angle.
- (ii) North and East is \_\_\_\_\_ angle.
- (iii) East and South is \_\_\_\_\_ angle.

#### Answer:

The angle formed between West and East is \_\_\_\_° and it is called \_\_\_\_\_ angle.

The angle formed between North and East is \_\_\_\_° and it is called \_\_\_\_\_ angle.

The angle formed between East and South is \_\_\_\_° and it is called \_\_\_\_\_ angle.

Question: 3

The addition of straight angle and right angle is \_\_\_\_\_ angle.

#### Answer:

The measurement of straight angle is \_\_\_\_\_°

The measurement of right angle is \_\_\_\_\_°.

Straight angle + Right angle = \_\_\_\_\_ + \_\_\_ = \_\_\_\_

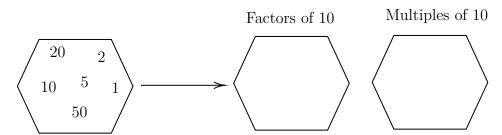
It is called as \_\_\_\_\_ angle.

Hi, here in this video you will learn LCM



Question: 4

Fill the hexagon with factors and multiples of 10.



.....

#### Answer:

A \_\_\_\_\_ (factor/multiple) of a number is an exact divisor of that number.

The factors of 10 are

10 x 1 =	x = 10
2 x = 10	x = 10

Let's find the multiple of 10

10 x 1 =	10 x 4 =
10 x 2 =	10 x 5 =
10 x 3 =	10 x 6 =

TTI	
Therefore, factors of 10 are	and multiples of 10 are
Question: 5	
Find the LCM of 50, 100.	
Answer:	
Complete the division using least commo	on multiple.
	50 , 100
The LCM of 50, 100 is 2 x 2 x x	·
Question: 6	
Every number is the multiple of	
Answer:	
Let's find the first ten multiple of rando	m numbers,
•	
Multi	ple of $1 = \underline{\hspace{1cm}}$
Multi	$ple of 2 = \underline{\hspace{1cm}}$
Multip	le of $13 = $
Multip	le of $20 = $
Here, is the common factor of e	very number.

## Mensuration

Topics to be Improved				
Perimeter	Perimeter of triangle			

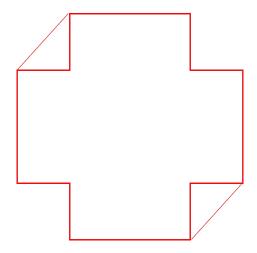
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Hi, here in this video you will learn **Perimeter** 



Question: 7

Highlight the perimeter in the given image.

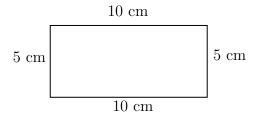


4					
4	$\boldsymbol{n}$	81	"	$oldsymbol{ ho}$	•

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

*Question:* 8 .....

Find the perimeter of the given figure.



#### Answer:

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

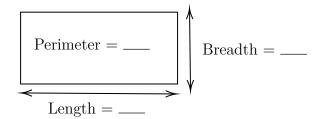
Perimeter of a shape is \_\_\_\_\_ ( sum / difference) of \_\_\_\_\_ (all/ opposite) sides.

Perimeter of the given shape = \_\_\_\_\_

Question: 9 ......

Find the length of the rectangular floor if its perimeter is 60 ft and breadth is 3 ft.

### Answer:



Shape of the floor is \_\_\_\_\_ and its perimeter formula is \_\_\_\_\_. Given:

floor perimeter = 
$$\_\_\_$$
, and breadth =  $\_\_\_$ .  
Perimeter of the floor =  $2(\_\_\_\_+ \_\_\_)$ .

Therefore, length of the rectangular floor is \_\_\_\_\_\_.

# Data handling

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

Hi,	here	${\rm in}$	this	video	you	will	learn	Range
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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:

Range =  $\_$ 

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.

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

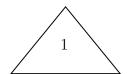
Hi, here in this video you will learn Basics of probability



$\underline{Question: \ 13}$
Identify the sure events and impossible events
(i) The sun rises in the west.
(ii) Water is colourless.
(iii) Clock rotates in clock wise direction.
(iv) Ball is square in shape.
$\underline{Answer:}$
Events that always occur are called (sure/ impossible) events.
Events that cannot occur are called (sure/ impossible) events.
Here, The sun rises in the west is event. Water is colourless is
event.  Clock rotates in clock wise direction is event. Ball is square in shape is event.
Question: 14
Probability of sure events is (greater / smaller) than probability of impossible events.
$\underline{Answer:}$
Probability of sure event = $\_\_\_(0/1/\text{ any number})$ . Probability of impossible event = $\_\_\_(0/1/\text{ any number})$ . Therefore, Probability of sure event $\_\_\_$ Probability of impossible event.
Question: 15
Raju has pencil, an eraser, a scale, sharpener, colour pencil and protractor in his box. What is the probability of getting a pen from his box.
Answer:
Things Raju have
Does Raju have pen in his box, (Yes/ No).  Then probability of getting pen from his box is (0/1)
Hi, here in this video you will learn <b>Mean</b> , <b>Median</b> , <b>Mode</b>
Question: 16
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:	17
q account.	

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	r.				
Arrange the given data in asc	ending order:				
Central value of the given day	ta is	$\_$ and it is the $\_$		of a data.	

## Question: 18

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:

 $\mathrm{Mean} = \frac{\phantom{Mean} \phantom{Mean} \phantom{Mean}$ 

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

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

Arrange the data in ascending order:

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

# Geometry

Topics to be Improved		
Related angles	Basic of angles, Complementary angles	
Faces vertex and edges	tex and edges Idenfication of faces, edges and vertices	
Sum of lengths of two sides of a triangle	Sum of two sides of a triangle	

Hi, here in this video you will learn Related Angles



Question: 19

- (i) When two rays of an angle are perpendicular, then the angle formed between them is a \_\_\_\_\_ angle .
- (ii) When two rays of an angle are in opposite sides, then the angle formed between them is a  $\_$  angle .

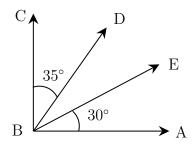
Answer:

A \_\_\_\_\_\_ ( line segment /ray ) begins from one point and travels endlessly in a direction.

- (i) The angle formed between two perpendicular rays is \_\_\_\_° and it is called \_\_\_\_\_ angle.
- (ii) If two rays starting at same point moves in opposite direction, they form a \_\_\_\_\_ (straight / perpendicular) line. The measure of the angle formed is \_\_\_\_ °and it is called \_\_\_\_ angles.

Question: 20

Find the angle of  $\angle DBE$ 



### Answer:

BA and BC are \_\_\_\_\_ ( parallel / perpendicular) rays. The angle formed between this rays is \_\_\_\_,  $\angle ABC =$  \_\_\_\_.

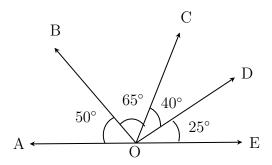
$$\angle ABC = \angle ABE + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$= 30^{\circ} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$= \underline{\hspace{1cm}}$$
Therefore,  $\angle DBE = \underline{\hspace{1cm}}$ 

## Question: 21

Find the complementary angles in the given diagram.



.....

## Answer:

Two angles are said be complementary if sum of their angles is equal to \_\_\_\_\_\_.

 $\angle AOB =$  \_\_\_\_\_, and its complement angle is \_\_\_\_\_.

 $\angle BOC =$  \_\_\_\_\_, and its complement angle is \_\_\_\_\_.

 $\angle COD =$  \_\_\_\_\_, and its complement angle is \_\_\_\_\_.

 $\angle DOE =$ \_\_\_\_\_, and its complement angle is \_\_\_\_\_

Therefore, in the given figure the complementary angles are  $\angle AOB$ , \_\_\_\_\_ and  $\angle BOC$ , \_\_\_\_\_

## Hi, here in this video you will learn Related Angles



## Question: 22

- 1. Two angles are complementary if their sum is equal to \_\_\_\_\_.
- 2. Two angles are supplementary if their sum is equal to \_\_\_\_\_.

#### Answer:

1. When sum of the two angles is equal to 90°, they are called as \_\_\_\_\_ angle. Example: 45° and 45°, \_\_\_\_\_, and \_\_\_\_.

2.	When sum of the two angles is equal to	180°, they are called as	angle.
	Example : 00° and 00°	and	

# Question: 23

Shade the complementary angles.

### Answer:

Two angles are said be complementary if the sum of their angles are equal to \_\_\_\_\_

$$85^{\circ} + 95^{\circ} =$$
 \_\_\_\_\_ and this is \_\_\_\_\_ (a / not a) complementary angles.  $45^{\circ} + 45^{\circ} =$  \_\_\_\_\_ and this is \_\_\_\_\_ angles.  $6^{\circ} + 84^{\circ} =$  \_\_\_\_\_ and this is \_\_\_\_\_ angles.  $73^{\circ} + 107^{\circ} =$  \_\_\_\_\_ and this is \_\_\_\_\_ angles.  $36^{\circ} + 64^{\circ} =$  \_\_\_\_\_ and this is \_\_\_\_\_ angles.  $90^{\circ} + 90^{\circ} =$  \_\_\_\_\_ and this is \_\_\_\_\_ angles.

# Question: 24

Find the complement and supplement of  $15^{\circ}$  and  $90^{\circ}$ 

## Answer:

One angle is \_\_\_\_\_ (complements / supplements) to other angle, when sum of the two angles is equal to  $90^{\circ}$ .

One angle is \_\_\_\_\_ (complements / supplements) to other angle, when sum of the two angles is equal to  $180^{\circ}$ .

Complement of 
$$15^{\circ} = \underline{\hspace{1cm}}$$
, Complement of  $90^{\circ} = \underline{\hspace{1cm}}$ . Supplement of  $15^{\circ} = \underline{\hspace{1cm}}$ , Supplement of  $90^{\circ} = \underline{\hspace{1cm}}$ .

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



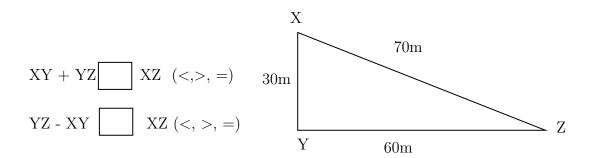
## Question: 25 .....

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: 26  Mark and find the number of vertices, edges and faces in a cube.
Wark 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.
How many vertices edges and faces does diese have?



Answer:  The shape of dice is  Dices have vertices, edges and faces.
Hi, here in this video you will learn Sum of the length of sides of the triangle
Question: 28
Find the greatest distance to reach C from A in the given diagram.
$\begin{array}{c} A \\ \hline 30m \\ B \\ \hline 60m \\ \end{array}$
Answer:
The sides of the given triangle are  The possible way to reach point C from point A are and AB then to
Question: 29
$\underline{\hspace{1cm}}$ (Sum of / Difference between) the length of any two sides of a triangle is smaller than the length of the third side.
Answer:
There are sides in a triangle.  The sum of the two sides of a triangle is than the other side of the triangle.  The difference of the two sides of a triangle is than the other side of the triangle.  Example: In triangle XYZ,



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 \_\_\_\_\_.

# Number system

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

......

Hi,	here	in	this	video	you	will	learn	Pro	perties	of	integers
,			0	0_ 0	.,				P 0- 0-00		



Question: 31

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
c	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.

(ii) Associative property:

Rearranging the parentheses (brackets) \_\_\_\_\_ (does not/does) change the sum.

Therefore, (a + b) + c =\_\_\_\_\_\_.

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

(iii) Commutative property:

Changing the order of the addends \_\_\_\_\_ (does not/ does) change the sum.

Therefore,  $a + b = _{---} + _{---}$ 

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

(iv) Identity property: The sum of \_\_\_\_\_ and any number always returns same number.

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

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

Question: 32			
Mark the operations in which	n commutative propert	y holds true for any tw	o integers.
Addition	Subtraction	Multiplication	Division
Answer:			
In commutative property, cha	0 0	(order/ brackets)	of the operands
For any two integers, communicative property for The commutative property for	or addition is		
Question: 33			
Are additive identity and mu	ltiplicative identity the	e same? (Yes or No)	
Answer:			
Identity property holds only The Identity property for add The Identity property for mu	dition is	_ and additive identity	
Therefore, additive identity i	s ( equal / not	t equal) to multiplicative	ve identity.
Hi, here in this video y  Question: 34		onents and power	
Find the exponential form of	1000.		
Answer:			
(Exponents/to get the desired result.	Base) tells us how man	ny times a number shou	ald be multiplied by itself
Exponents is also called as _	(Base / Power)		
	1000 can be written a	$as = 10 \times \underline{\qquad} \times \underline{\qquad}$	
10 is rai	sed to the power of	_= (10)—	
Question: 35			
Find the value of $(-2)^3$ .			
Answer:			
	Base) tells us how man	ny times a number shou	ıld 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)—

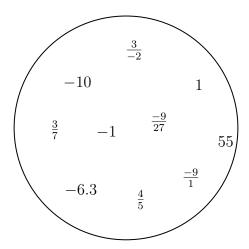
- (i) Tenth power of 100: Base = \_\_\_\_, Power/Exponents = \_\_\_\_, exponential form = \_\_\_\_.
- (ii) k is raised to the power of 5: Base = \_\_\_\_, Power/Exponent = \_\_\_\_, exponential form = \_\_\_\_.

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



Question: 37

Segregate positive and negative rational number.



Answer:

- If both the numerator and the denominator of a rational number are \_\_\_\_\_\_ (positive/negative), then it is positive rational number.
- If either the numerator and the denominator of a rational number are negative, then it is \_\_\_\_\_\_ (positive/negative) rational number.

In the given circle, positive rational numbers are	$_{\scriptscriptstyle -}$ and negative rational numbers are
Question: 38	
$\frac{-3}{-4}$ is a (positive /negative / neither positive nor	r negative) rational number.
Answer:	
-3 is a number, $-4$ is a number	r.
Division of $\frac{-3}{-4} = \square$ and this rational number.	mber.
(Positive / Negative / Neither positive nor negative r	rational number)
Question: 39	
The product of a positive rational number and a negative rational number. (Positive/ Negative/ neither positive nor negative rational number.)	
Answer:	
Examples for positive rational numbers:  Examples for negative rational numbers:  Positive rational number × Negative rational number =  rational number  Hi, here in this video you will learn <b>Division on fra</b>	
<b>Question:</b> 40 Find the shape which contains the improper fraction of $5\frac{2}{7}$ .	
$\begin{array}{ c c c c }\hline & 10 & & \hline $	$) \qquad \boxed{\frac{32}{7}}$
Answer:	
$5\frac{2}{7}$ is a (proper/mixed) fraction. Here, 5 is , 2 is and 7 is	
To convert mixed fraction into improper fraction, $\frac{\text{(Whole} \times )}{D}$	${enominator}) + Numerator$
$5\frac{2}{7} = \frac{(\times) +}{7}$	=
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 \_\_\_\_\_

$$\frac{12}{40} \div \underline{\hspace{1cm}} = \frac{12}{40} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$$

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

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



## Question: 43

Fill in the boxes to make the given expression correct.

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

.....

## Answer:

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

Here, dividend = and divisor = =

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

## Question: 44

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 = \_\_\_\_\_.

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

Question: 45

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

Answer:

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

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

Transposing 8/3 to RHS,

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

......

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

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

.....

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

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



Question: 46

Fill the boxes

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

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: 47

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: 48

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

Answer:

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

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

# Comparing Quantities

	Topics to be Improved	
Percentage	Basic of percentage	
Hi, here in this video you	will learn Basics of percentage	
Question: 49		
2% can be written as		
Answer:		
Percentages are numerators of i	fractions with denominator $2\% = \frac{\Box}{\Box}$	
Question: 50		
Arun attended the LaPIS test f Arun?	for 100 marks and got $75\%$ marks. What is the	mark scored by
Answer:		
Arun attended LaPIS test for $\_$	marks. He got	marks.
75 % can be written in fraction	n form —	
Then the mark scored by Arun	$n = \text{Total mark} \times 75\% = \underline{\qquad} \times \underline{\qquad}$	=
Question: 51		
There are 25 apples in a basket apples.	in which 10 of them are rotten. Find the perc	entage of rotten
$\underline{Answer:}$		
There are apples in a k Number of rotten apples are		

Fraction form of rotten apples in a	a basket =	
Convert it into a percent=	x	% =

# Algebra

Topics to be Improved				
Basics of simple equation	Formating of simple equation, Solving of simple equation			
Addition and subtraction of algebraic expressions	Like terms and Unlike terms			
subtraction of algebraic expressions	subtraction of algebraic expressions			

Hi,	here	in	this	${\rm video}$	you	will	learn	Solving	an	equation	using
app	olica	tio	$\mathbf{n}$								



Question:	50
Question:	52



Box B contains	times the number of chocolates in Box A
Answer:	
Box A contains Box B contains No. of chocolates	
Question: 53	
*	for the following statement. Since $m$ from 4 is $n$

### Answer:

Four times of m = \_\_\_\_\_ Subtracting four times of m from 4 = \_\_\_\_\_

The equation is \_\_\_\_\_

Question: 54

Compare the given two statements (<,>,=)

Sum of $2a$ and $9$ Add $9$ to the product of $a$ and $2$
Answer:
Sum of $2a$ and $9 = \underline{\hspace{1cm}}$
Product of $a$ and $2 = \underline{\hspace{1cm}}$
Add 9 to the product of $a$ and $2 = \underline{\hspace{1cm}}$
Therefore, sum of $2a$ and $9$ Add $9$ to the product of $a$ and $2$
Hi, here in this video you will learn Addition on expression
Question: 55
Shade the like terms.
$\begin{array}{ c c c c c c }\hline & & & & & & & & & & & & & & & & & & &$
$\underline{Answer:}$
Given terms are
Two or more term have ( same/ different) variables is called like terms. Here, like terms are
Question: 56
Complete the expression $7r^2 + r \square - 2 \square = r^2$
$\underline{Answer:}$
(Like / Unlike) terms can be added or subtracted.
$_{7r^2+ \ r} \square_{-2} \square = (7 +  - 2)_{r^2} = $
Question: 57
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		

Ram's chocolate + Sam's chocolates = \_\_\_\_\_ + \_\_\_\_ = \_\_\_

\_\_\_\_\_ icecream - \_\_\_\_ icecream = \_\_\_\_ - \_\_ = \_\_\_\_

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Hi, here in this video you will learn Solving an equation



## Question: 58

If  $\odot = 5$ , then  $5 \odot +5 =$ 

## Answer:

The value of the given smiley © is \_\_\_\_\_.

Substituting the value in the expression  $= 5(\underline{\hspace{1cm}}) + 5 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$ 

## Question: 59

Which of the following number can be placed in the box to make the equation correct (-2, -1, 0, 1, 2)

7 + 3 = -4

#### Answer:

The given equation is 7 = -4 Substitute the values (-2, -1, 0, 1, 2) in the circle,

$$7 \times$$
 \_\_\_\_\_+ $3 =$  \_\_\_\_\_

$$7 \times \underline{\hspace{1cm}} + 3 = \underline{\hspace{1cm}}$$

$$7 \times$$
 \_\_\_\_\_+ $3 =$  \_\_\_\_\_

$$7 \times \_\_+3 = \_\_$$

Therefore, \_\_\_\_\_ is the number that can be placed in a box to make the equation correct.

## Question: 60

Arrange the terms in the descending order when the value of x is 2.

 $2x \qquad 5x \times 1 \qquad x+3 \qquad 2x-4 \qquad \frac{1}{2}x$ 

#### Answer:

The given expression are \_\_\_\_\_

The value of x is \_\_\_\_\_.

substituting value of x

$$2x = 2 \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}} 2x - 4 = 2 \times \underline{\hspace{1cm}} - 4 = \underline{\hspace{1cm}}$$
 $x + 3 = \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \frac{1}{2}x = \frac{1}{2} \times \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$ 
 $5x \times 1 = 5 \times \underline{\hspace{1cm}} \times 1 = \underline{\hspace{1cm}}$ 

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Arranging in descending order: \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_. Their respective algebraic terms are \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_,

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



Question: 61

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) terms.

The sum of two expressions =  $\_$  +  $\_$ .

The answer is \_\_\_\_

Question: 62

Г	Г	Г
	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?

#### Answer:

- (i) Number of boys in school  $A = \underline{\hspace{1cm}}$ Number of boys in school  $B = \underline{\hspace{1cm}}$ . Total number of boys in school A and school B is  $\_\_\_$  +  $\_\_\_$
- (ii) Number of boys in school B = \_\_\_\_\_, Number of girls in school  $B = \underline{\hspace{1cm}}$ .

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

Question: 63

Solve the following:

$$\begin{array}{c}
13x + \underline{\hspace{1cm}} \\
(+) \quad 12x + 10y \\
\underline{\hspace{1cm}} + 25y
\end{array}$$

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

Answer:

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

$$\begin{array}{c|c}
13x + \underline{\hspace{1cm}} \\
(+) & 12x + 10y \\
\underline{\hspace{1cm}} + 25y
\end{array}$$

$$\begin{array}{r}
 3a - 5b \\
 \hline
 (-) \quad 5a - 7b \\
 -2a - \underline{\hspace{1cm}}
 \end{array}$$