

LaPIS Diagnostic Test Workbook - Mathematics

Name : Agilan V S

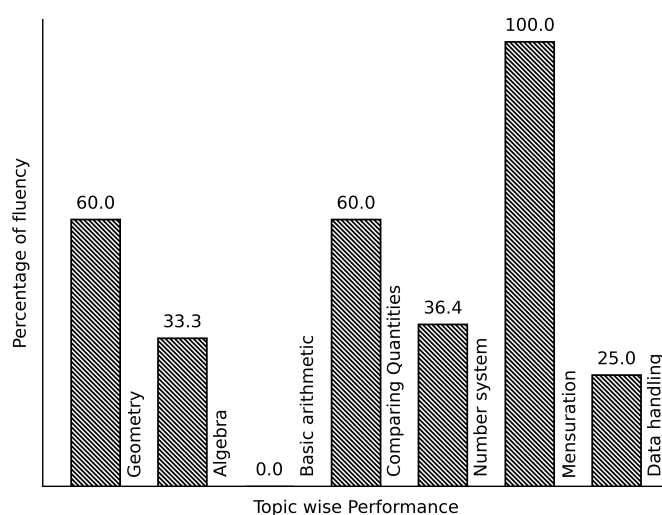
Class : 7

Section : A

School : AKV Public School

Login ID : AKV098

Agilan V S's Performance Report



Score: 18/40

Percentage: 45.0%

Agilan V S's Study Planner

Date	Topics Planned	Q. Numbers	Teacher Remark	Teacher Sign	Parent Sign

Teacher's Feedback to Student

Class Teacher Signature

Principal Signature

Basic arithmetic

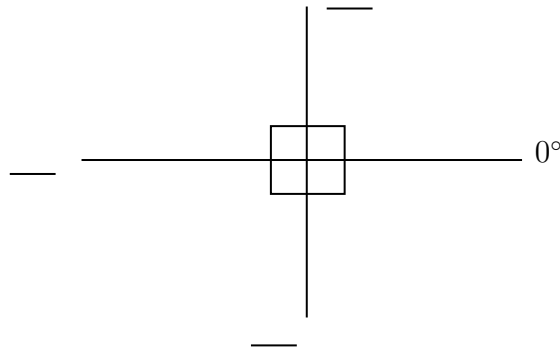
Topics to be Improved	
Types of angles	Identification of types of angles
LCM	Finding LCM

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



Question: 1

Find the angles.



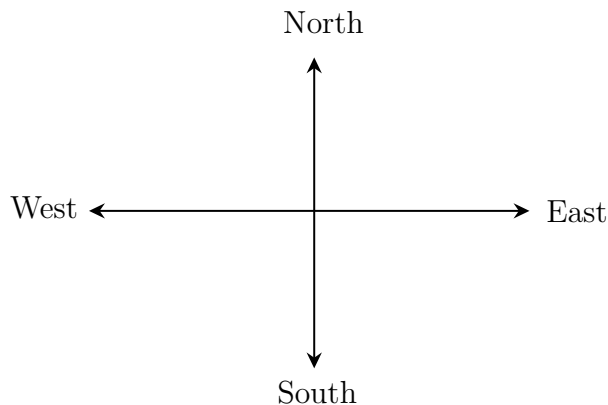
Answer:

The angle ranges from ____° to ____°.

The angle perpendicular to 0° is ____°.

The straight line measures ____°.

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:

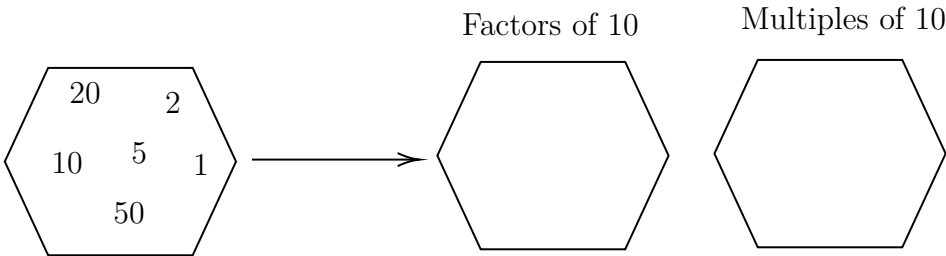
The measurement of straight angle is _____°
 The measurement of right angle is _____°.
 Straight angle + Right angle = _____ + _____ = _____
 It is called as _____ angle.

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 = ____

Therefore, factors of 10 are _____ and multiples of 10 are _____.

Question: 5

Find the LCM of 50, 100.

Answer:

Complete the division using least common multiple.

	50 , 100

The LCM of 50, 100 is $2 \times 2 \times ___ \times ___$.

Question: 6

Every number is the multiple of _____

Answer:

Let's find the first ten multiple of random numbers,

Multiple of 1 = _____
Multiple of 2 = _____
Multiple of 13 = _____
Multiple of 20 = _____

Here, _____ is the common factor of every number.

Data handling

Topics to be Improved	
Arithmetic mean, mode and median	Mean, Median and Mode
Chance of probability	Basis of probability
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:

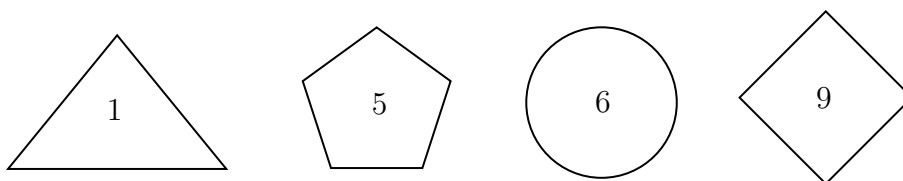
Mode is the number that occurs _____ (frequently / rarely) in a given list of observations.

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.

Question: 9

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

Mean = _____ , Median = _____ and Mode = _____.

Answer:

Mean = $\frac{\text{sum of all observation}}{\text{number of observation}}$.

Here s sum of all observation = _____ , number of observation = _____

Therefore, mean = _____

Arrange the data in ascending order : _____

Here, median = _____ , mode = _____.

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



Question: 10

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.

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: 11

Probability of sure events is _____ (greater / smaller) than probability of impossible events.

Answer:

Probability of sure event = _____ (0/ 1/ any number).

Probability of impossible event = _____ (0/ 1/ any number).

Therefore, Probability of sure event _____ Probability of impossible event.

Question: 12

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 **Range**



Question: 13

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 = _____ , Lowest value = _____ .

Range = _____ - _____ = _____.

Question: 14

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

$$-20 + 51$$

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

$$51 + 38$$

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

Answer:

Range = _____ - _____.

Arranging the data in ascending order, _____

In the given data,

Highest value = ____ , Lowest value = ____ , Range = _____ - _____ = _____

Question: 15

Find the range of first 10 multiple of 5.

Answer:

First 10 multiple of 5 = _____

Therefore,

Highest value = _____ , Lowest value = _____ , Range = _____ - _____ = _____

Geometry

Topics to be Improved	
Right angle triangle and pythagoras property	Basics of Pythagoras property
Related angles	Complementary angles
Faces vertex and edges	Identification 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 **Pythagoras property**



Question: 16

In a right angled triangle, square of the _____ = sum of the squares of the legs.

Answer:

Pythagoras theorem is only applicable for _____ triangle.

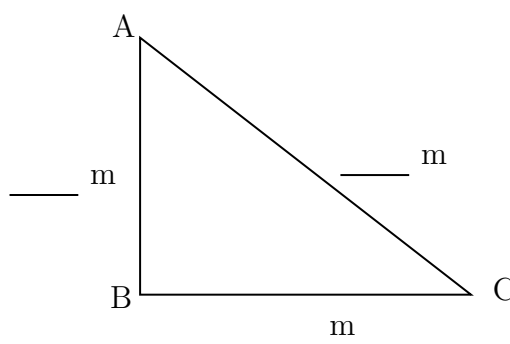
Longest side of the triangle is _____ (hypotenuse/ legs) and other two sides are called _____ (hypotenuse/ legs).

Pythagoras theorem states that _____.

Question: 17

Find the hypotenuse of the triangle ABC if base is 12 m and altitude is 5 m.

Answer:



Pythagoras theorem states that square of the _____ = sum of the squares of its _____.

Given: Base = _____, Altitude = _____,

Base and altitude are _____ (hypotenuse/ legs) of the triangle.

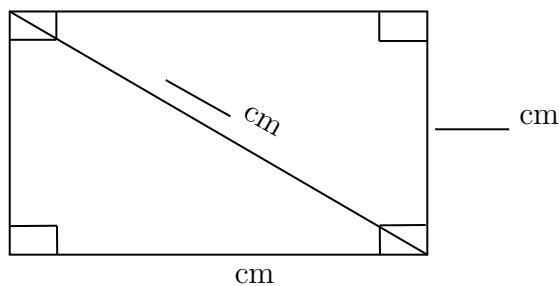
By Pythagoras theorem, $(\text{---})^2 = (\text{---})^2 + (\text{---})^2$
 $\text{---} = \text{---} + \text{---}$

Therefore, hypotenuse of the triangle is --- .

Question: 18

Find the length of the rectangle, if breadth is 3 cm and diagonal is 5 cm.

Answer:



Pythagoras theorem states that square on the --- = sum of the squares on --- .

Is Pythagoras theorem applicable in rectangle? --- (yes/ no).

Given: breadth = --- , length of diagonal = ---

By Pythagoras theorem, $(\text{---})^2 = (\text{---})^2 + (\text{---})^2$
 $\text{---} = \text{---} + \text{---}$

Therefore, diagonal of the rectangle is ---

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



Question: 19

- Two angles are complementary if their sum is equal to --- .
- Two angles are supplementary if their sum is equal to --- .

Answer:

- When sum of the two angles is equal to 90° , they are called as --- angle.
 Example : 45° and 45° , --- , and --- .
- When sum of the two angles is equal to 180° , they are called as --- angle.
 Example : 90° and 90° , --- , and --- .

Question: 20

Shade the complementary angles.

85°, 95°	45°, 45°	6°, 84°	73°, 107°	36°, 64°	90°, 90°
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Answer:

Two angles are said to be complementary if the sum of their angles are equal to _____.

$85^\circ + 95^\circ = \underline{\hspace{2cm}}$ and this is _____ (a / not a) complementary angles.
 $45^\circ + 45^\circ = \underline{\hspace{2cm}}$ and this is _____ angles.
 $6^\circ + 84^\circ = \underline{\hspace{2cm}}$ and this is _____ angles.
 $73^\circ + 107^\circ = \underline{\hspace{2cm}}$ and this is _____ angles.
 $36^\circ + 64^\circ = \underline{\hspace{2cm}}$ and this is _____ angles.
 $90^\circ + 90^\circ = \underline{\hspace{2cm}}$ and this is _____ angles.

Question: 21

Find the complement and supplement of 15° and 90°

Answer:

One angle is _____ (complements / supplements) to other angle, when sum of the two angles is equal to 90° .

One angle is _____ (complements / supplements) to other angle, when sum of the two angles is equal to 180° .

Complement of $15^\circ = \underline{\hspace{2cm}}$,

Complement of $90^\circ = \underline{\hspace{2cm}}$.

Supplement of $15^\circ = \underline{\hspace{2cm}}$,

Supplement of $90^\circ = \underline{\hspace{2cm}}$

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



Question: 22

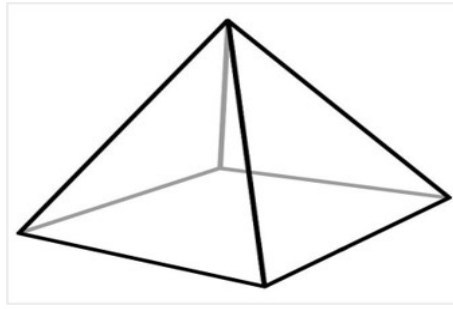
A point at which two or more line segments meet is called _____ (Vertex/ edges/ faces).

Answer:

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

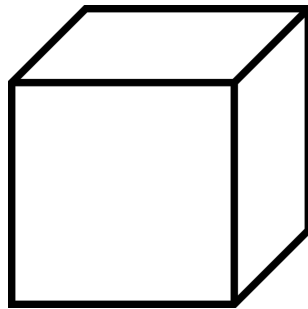
A _____ is a point where two or more line segments meet (Vertex/ edges/ faces).

Mark the vertices in the diagram,



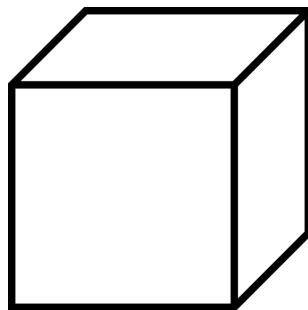
Question: 23

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?



Answer:

The shape of dice is _____.

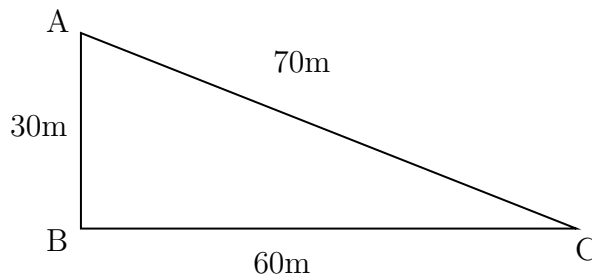
Dices have _____ vertices, _____ edges and _____ faces.

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



Question: 25

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



Answer:

The sides of the given triangle are _____.

The possible way to reach point C from point A are _____ and AB then to

Side AC = _____

Side AB + BC = _____ + _____ = _____

Therefore, the greatest distance to reach C from A in the given diagram is _____.

Question: 26

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

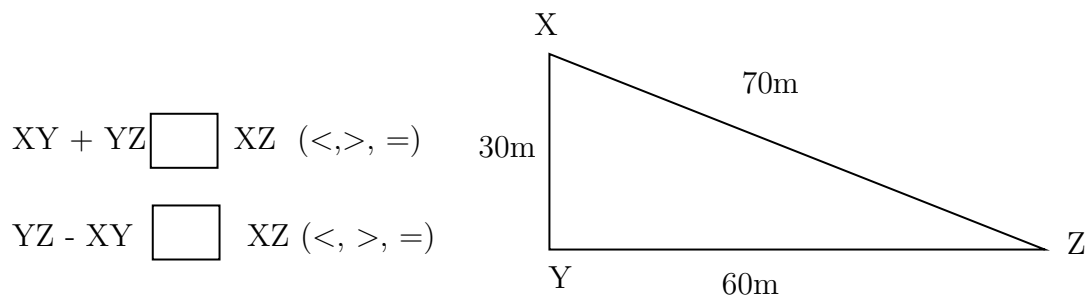
Answer:

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,



Question: 27

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

Hi, here in this video you will learn **Exponents and power**



Question: 28

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 $= 10 \times \text{_____} \times \text{_____}$
10 is raised to the power of $\text{___} = (10)\text{---}$

Question: 29

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 = ___ .
 $(-2)^3 = \text{___} \times \text{___} \times \text{___} = \text{___}$.

Question: 30

- (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)——

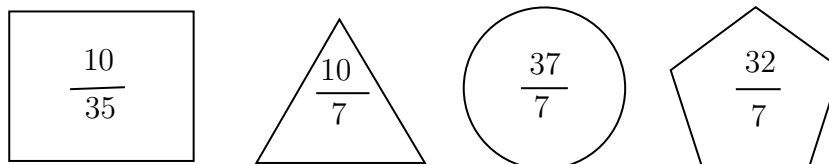
- (i) Tenth power of 100 : Base = ____, Power/Exponents = ____, exponential form = ____.
- (ii) k is raised to the power of 5 : Base = ____, Power/Exponent = ____, exponential form = ____.

Hi, here in this video you will learn **Division on fractions**



Question: 31

Find the shape which contains the improper fraction of $5\frac{2}{7}$.



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, $\frac{(\text{Whole} \times \text{Denominator}) + \text{Numerator}}{\text{Denominator}}$

$$5\frac{2}{7} = \frac{(\text{ } \times \text{ }) + \text{ } }{7} = \frac{\boxed{}}{\boxed{}}$$

Question: 32

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 = _____.

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

Question: 33

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

Answer:

To find half of a number, divide the number by _____

$$\frac{12}{40} \div \underline{\hspace{2cm}} = \frac{12}{40} \times \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$$

Then the answer is _____

Hi, here in this video you will learn **Basics of decimals**



Question: 34

Shade 0.4 part of the given shape.



Answer:

There are _____ boxes.

0.4 can be expressed as _____ in fraction

This fraction represents _____ parts out of _____ equal parts.

So, we need to shade _____ boxes out of _____ boxes.

Question: 35

Solve the following.

(i) 0.4×1.2

(ii) 0.48×1.2

Answer:

(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 _____.

Question: 36

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.

$$\frac{2010}{15} = \underline{\hspace{2cm}}$$

(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 _____ = _____ \times _____ = _____

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



Question: 37

Fill in the boxes to make the given expression correct.

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

Answer:

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

Here, dividend = _____ and divisor = _____

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

Question: 38

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

Answer:

Fraction form of 0.6 = _____,
when any fraction is divided by a fraction, we multiply the dividend by the _____
(same/reciprocal) of the divisor. Here, dividend = _____ and divisor = _____.

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

Question: 39

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

Answer:

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

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

Transposing $\frac{8}{3}$ to RHS,

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

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

$$\frac{\boxed{}}{16} = \frac{\boxed{}}{\boxed{}}$$

Transposing 16 to other side, the result is _____.

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



Question: 40

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.

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

Question: 41

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 = $\frac{\square}{\square} \times \text{_____} = \text{_____}$

Question: 42

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, $\frac{(\text{Whole} \times \text{Denominator}) + \text{Numerator}}{\text{Denominator}}$

Improper fraction of $2\frac{7}{4} = \text{_____}$

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

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



Question: 43

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, _____ + _____ = _____

From the given option _____ satisfies the closure property.

(ii) Associative property :

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

Therefore, $(a + b) + c = \underline{\hspace{2cm}}$.

From the given option _____ satisfies the Associative property.

(iii) Commutative property :

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

Therefore, $a + b = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

From the given option _____ satisfies the Commutative property.

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

Therefore, $a + \underline{\hspace{2cm}} = a$

From the given option _____ satisfies the Identity property.

Question: 44

Mark the operations in which commutative property holds true for any two integers.

Addition

Subtraction

Multiplication

Division

Answer:

In commutative property, changing the _____ (order/ brackets) of the operands _____ (does not/ does) change the result.

For any two integers, commutative property holds true for _____.

The commutative property for addition is _____.

The commutative property for multiplication is _____.

Question: 45

Are additive identity and multiplicative identity the same? (Yes or No)

Answer:

Identity property holds only for _____ , _____

The Identity property for addition is _____ and additive identity is _____.

The Identity property for multiplication is _____ and multiplicative identity is _____.

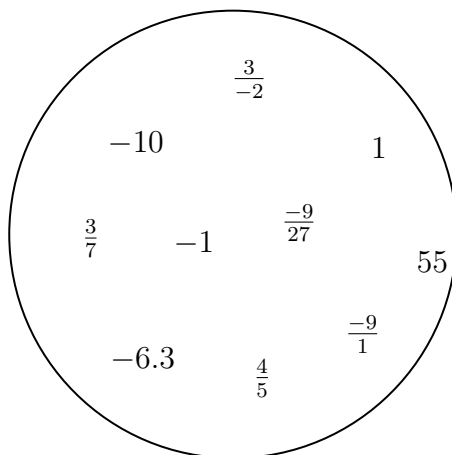
Therefore, additive identity is _____ (equal / not equal) to multiplicative identity.

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



Question: 46

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 _____ and negative rational numbers are _____.

Question: 47

$\frac{-3}{-4}$ is a _____ (positive /negative / neither positive nor negative) rational number.

Answer:

-3 is a _____ number, -4 is a _____ number.

Division of $\frac{-3}{-4} = \frac{\boxed{}}{\boxed{}}$ and this _____ rational number.

(Positive / Negative / Neither positive nor negative rational number)

Question: 48

The product of a positive rational number and a negative rational number is _____ rational number. (Positive/ Negative/ neither positive nor negative)

Answer:

Examples for positive rational numbers: _____

Examples for negative rational numbers: _____

Positive rational number \times Negative rational number = _____ \times _____ = _____ and this is
_____ rational number

Comparing Quantities

Topics to be Improved	
Simple interest	Calculation of simple interest
Percentage	Basic of percentage

Hi, here in this video you will learn **Simple Interest**



Question: 49

Match the following.

Column A	
i	Principle(P)
ii	Amount (A)
iii	Rate (R)
iv	Time period (T)

Column B	
a	Interest calculated based on this
b	Total sum you borrow
c	Number of years
d	Total sum with interest

Answer:

Formula for calculating simple interest = _____.

Interest calculated based on _____.

Total sum you borrow is known as _____.

Number of years is _____. Total sum with interest is _____.

Question: 50

Sara deposited Rs.1200 in a bank. After three years, she received Rs.1320. Find the interest she earned.

Answer:

Given:

Amount = _____, Principle = _____, Time period = _____.

If Amount and principle is given, then formula for calculating interest is _____.

Interest = _____ - _____ = _____

Question: 51

The simple interest on Rs.5000 for 3 years is Rs.1350. Find the rate of interest.

Answer:

Interest = _____, Time period = _____, Principal = _____.

$$\text{Rate of interest} = \frac{\text{_____} \times 100}{\text{Principal} \times \text{_____}}$$

Substituting values in the formula,

$$\text{Rate of interest} = \frac{\text{_____} \times 100}{\text{Principal} \times \text{_____}}$$

Rate of interest = _____

Therefore, the rate of interest is _____ %

Hi, here in this video you will learn **Basics of percentage**



Question: 52

2% can be written as

Answer:

Percentages are numerators of fractions with denominator _____

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

Question: 53

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.

$$75\% \text{ can be written in fraction form } \frac{\boxed{}}{\boxed{}}$$

$$\text{Then the mark scored by Arun} = \text{Total mark} \times 75\% = \text{_____} \times \frac{\boxed{}}{\boxed{}} = \text{_____}$$

Question: 54

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

Convert it into a percent = _____ x _____% = _____

Algebra

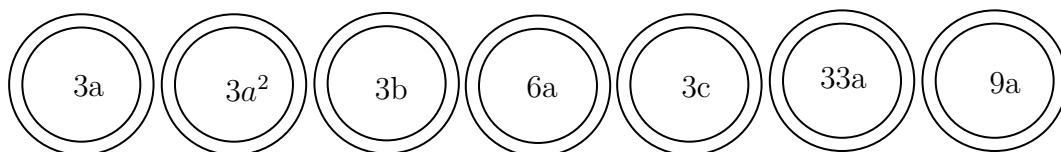
Topics to be Improved	
Addition and subtraction of algebraic expressions	Like terms and Unlike terms
Monomials, binomials, trinomials and polynomials	Types of algebraic expression
subtraction of algebraic expressions	subtraction of algebraic expressions
Basics of simple equation	Solving of simple equation

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



Question: 55

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: 56

Complete the expression $7r^2 + \boxed{} - 2\boxed{} = \underline{\hspace{2cm}}r^2$

Answer:

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

$$7r^2 + 1 - 2 = (7 + \underline{\quad} - 2)r^2 = \underline{\quad}$$

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		

- (i) Total chocolates Ram and Sam have :
 Ram's chocolate + Sam's chocolates = _____ + _____ = _____
- (ii) How many icecreams Sam have more than Ram :
 _____ icecream - _____ icecream = _____ - _____ = _____

Hi, here in this video you will learn **Types of expression**



Question: 58

There are _____ terms in the expression $7x + 3y + m + 5$.

Answer:

In algebraic expression, _____ (variables/ terms) are connected together with operations of addition.

The terms in the expression are _____ , _____ , _____ , and _____ .

Therefore, there are _____ terms in the expression.

Question: 59

Classify the following expression into monomial, binomial and polynomial.

- $7m + n + 2$
- $8x^2 + 0$
- $7xy + 4m$

Answer:

- The terms in expression $8x^2 + 0$ are _____.
 Here, expression has _____ term and it is a _____.
- The terms in expression $7xy + 4m$ are _____.
 Here, expression has _____ term and it is a _____.

3. The terms in expression $7m + n + 2$ are _____.
Here, expression has ____ term and it is a _____.

Question: 60

$5m^2 + m + 0$ is a _____ expression. (Monomial/ Binomial/ Trinomial)

Answer:

The terms in expression $5m^2 + m + 0$ are _____.

Here, the expression has _____ terms and it is called a _____ expression.

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

	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 = _____,

Number of boys in school B = _____.

Total number of boys in school A and school B is _____ + _____ = _____.

- (ii) Number of boys in school B = _____,
 Number of girls in school B = _____.
 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: 63

Solve the following:

$$\begin{array}{r} 13x + \text{---} \\ (+) 12x + 10y \\ \hline \text{---} + 25y \end{array}$$

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

Answer:

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

$$\begin{array}{r} 13x + ______ \\ (+) 12x + 10y \\ \hline ______ + 25y \end{array}$$

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

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



Question: 64

If $\odot = 5$, then $5 \odot + 5 = \underline{\hspace{2cm}}$

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: 65

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

$$7\boxed{} + 3 = -4$$

Answer:

The given equation is $7x + 3 = -4$ Substitute the values $(-2, -1, 0, 1, 2)$ in the circle,

$$7 \times \underline{\quad} + 3 = \underline{\quad}$$

$$7 \times \underline{\quad} + 3 = \underline{\quad}$$

$$7 \times \underline{\quad} + 3 = \underline{\quad}$$

$$7 \times \underline{\quad} + 3 = \underline{\quad}$$

$$7 \times \underline{\quad} + 3 = \underline{\quad}$$

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

Question: 66

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

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

Answer:

The given expression are _____.

The value of x is _____.

substituting value of x

$$2x = 2 \times \text{_____} = \text{_____}$$

$$2x - 4 = 2 \times \text{_____} - 4 = \text{_____}$$

$$x + 3 = \text{_____} = \text{_____}$$

$$\frac{1}{2}x = \frac{1}{2} \times \text{_____} = \text{_____}$$

$$5x \times 1 = 5 \times \text{_____} \times 1 = \text{_____}$$

Arranging in descending order: _____, _____, _____, _____, _____.

Their respective algebraic terms are _____, _____, _____, _____, _____.