

LaPIS Diagnostic Test Workbook - Mathematics

Name : Vibish K S

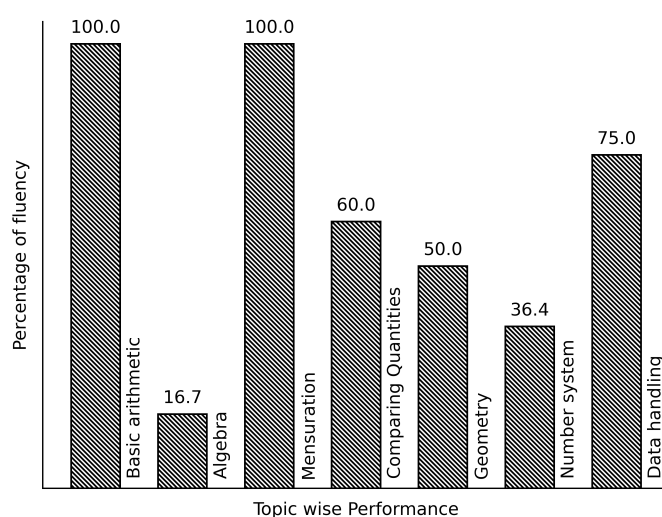
Class : 7

Section : A

School : AKV Public School

Login ID : AKV119

Vibish K S's Performance Report



Score: 20/40

Percentage: 50.0%

Vibish K 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

Data handling

Topics to be Improved	
Chance of probability	Basis of probability

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



Question: 1

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: 2

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: 3

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)

Geometry

Topics to be Improved	
Angle sum property of triangle	Angle sum property of triangle
Related angles	Basic of angles
Faces vertex and edges	Identification of faces, edges and vertices
Right angle triangle and pythagoras property	Basics of Pythagoras property
Criteria for congruence of triangle	Identification of criteria of congruence of triangles

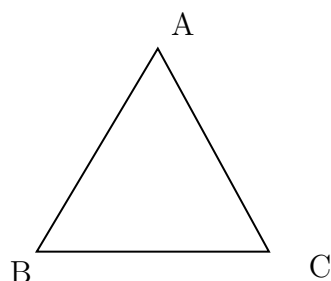
Hi, here in this video you will learn **Angle sum property**



Question: 4

Sum of the angles of triangle is _____.

Answer:



$$\angle A + \angle B + \angle C = \underline{\hspace{2cm}}$$

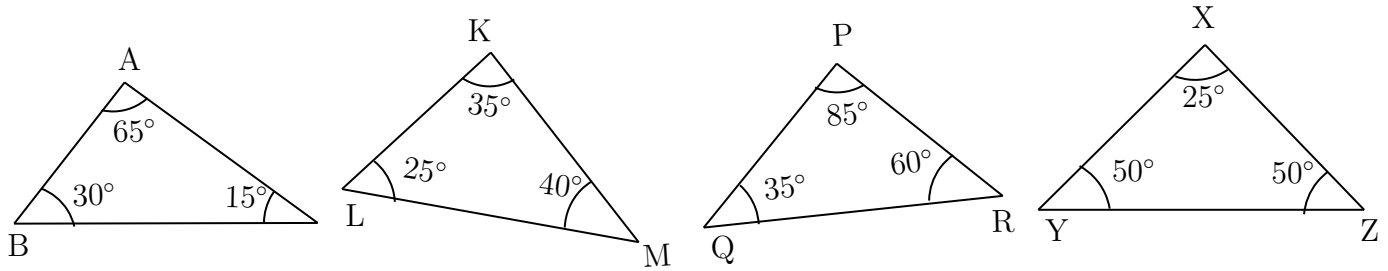
Angle sum formula = $(n - 2) \times 180^\circ$, n = number of sides

Triangle has _____ sides.

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

Question: 5

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 = $\angle A + \angle B + \angle C = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

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: 6

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 $x = \underline{\hspace{2cm}}$

The angles of the triangle are _____

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



Question: 7

- (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 .

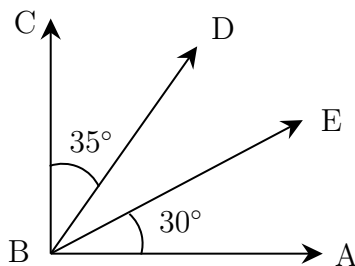
Answer:

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

- (i) The angle formed between two perpendicular rays is _____ $^\circ$ 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 _____ $^\circ$ and it is called _____ angles.

Question: 8

Find the angle of $\angle DBE$



Answer:

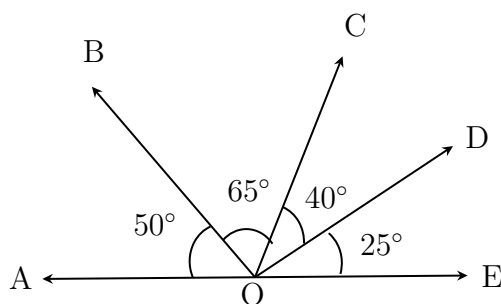
BA and BC are _____ (parallel / perpendicular) rays.
The angle formed between this rays is ____, $\angle ABC =$ ____.

$$\begin{aligned}\angle ABC &= \angle ABE + \text{_____} + \text{_____} \\ &= 30^\circ + \text{_____} + \text{_____} \\ &= \text{_____}\end{aligned}$$

Therefore, $\angle DBE =$ _____

Question: 9

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 **Basics of 3D model**



Question: 10

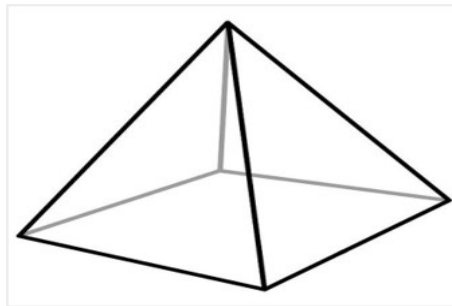
A point at which two or more lines segments meet is called _____(Vertex/ edges/ faces).

Answer:

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

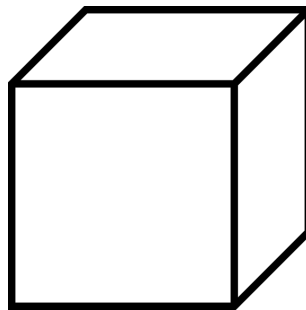
A _____ is a point where two or more line segments meet(Vertex/ edges/ faces).

Mark the vertices in the diagram,



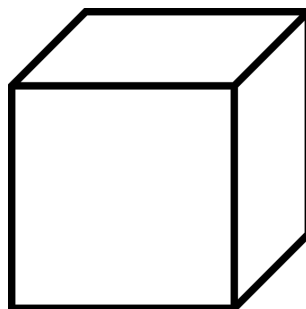
Question: 11

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: 12

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 **Pythagoras property**



Question: 13

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

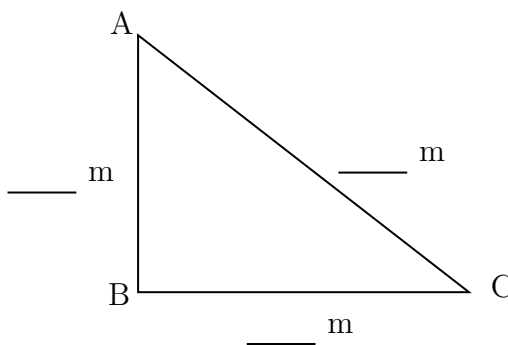
Answer:

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: 14

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.

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

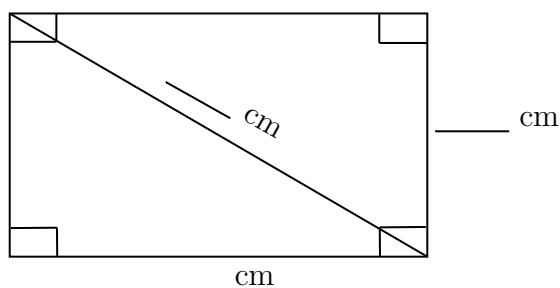
$$\text{_____} = \text{_____} + \text{_____}$$

Therefore, hypotenuse of the triangle is _____.

Question: 15

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 = _____

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

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

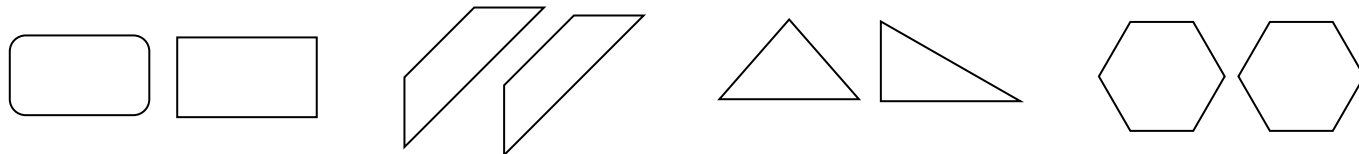
Therefore, diagonal of the rectangle is _____

Hi, here in this video you will learn **Criteria of congruence**



Question: 16

Circle the groups that contain congruent images.



Answer:

Two geometrical shapes are said to be congruent if they are _____
(identical/non-identical) in shapes and size.

Example: Square and Rectangle are _____ (congruent/not congruent).

Question: 17

If the three sides of the triangle are equal to the corresponding sides of the other triangle, then two triangles are congruent under _____ (SSS/ASA/SAS) criteria .

Answer:

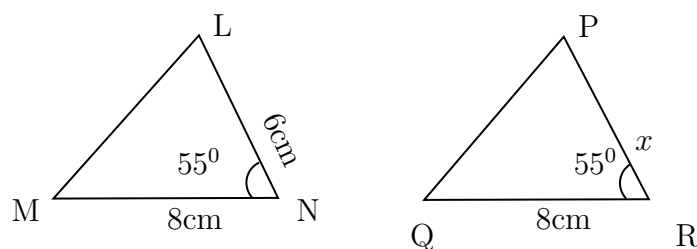
Two triangle are _____ (congruent/not congruent) if they are identical in shapes and size.
Criteria for congruence of triangles are SSS, _____ and _____.

1. In SSS Congruence criteria - ____ (2/ 3/ 5) sides of the triangle are _____ (equal/ not equal) to the three corresponding sides of the other triangle.
2. In SAS Congruence criteria - ____ (2/ 3/ 5) sides and _____ (one/two) angle between them are equal to the corresponding sides and the included angle of the other triangle.
3. In ASA Congruence criteria - ____ (2/ 3/ 5) angles and _____ (one/two) side between them are equal to the corresponding angles and the included side of the other triangle.

SSS	_____ sides and _____ angles are equal
SAS	_____ sides and _____ angles are equal
ASA	_____ sides and _____ angles are equal

Question: 18

The triangles LNM and PRQ are congruent by SAS criteria. Then find the side PR



Answer:

The given two triangles satisfy _____ criteria of congruence.

By SAS congruence criteria, $MN =$ _____ , _____ and $\angle N =$ _____

The side $MN = 8$ cm in $\triangle LNM$ 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 _____ $\triangle LNM$.

Therefore, length of side $PR =$ _____

Number system

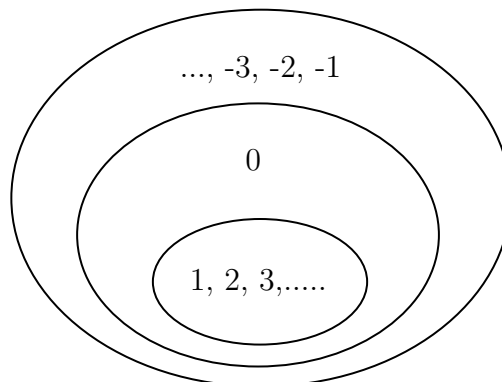
Topics to be Improved	
Integers	Basics of integers
Operations on rational numbers	Division of rational numbers
Positive and negative rational numbers	Identification of positive rational numbers
Fractions	Multiplication of fractions, Division of fraction
Exponents	Solving exponents
Properties of integers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

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



Question: 19

Highlight the ring that contains whole numbers.



Answer:

The numbers inside the inner ring (1, 2, 3,...) are _____ numbers.

The numbers inside the middle ring are _____ numbers.

The numbers inside the outer ring are negative numbers, positive numbers and zero and they are called as _____.

Question: 20

Colour the frame of the box which contains the number 1, 4 and -10

Whole numbers	Negative numbers	Integers	Naturals numbers
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Answer:

Whole number consists of 0,1,2,3,4,..... Negative number consists of _____.
Natural numbers consists of _____. Integers consists of _____.
Now, 1, 4, -10 are in _____.

Question: 21

State whether the statement is true or false.

Every positive number is an integer.

Answer:

Positive numbers are _____. Integers consists of _____.
Therefore, positive numbers are _____ (in/not in) integers.

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



Question: 22

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: 23

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: 24

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

Answer:

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

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

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

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

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

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

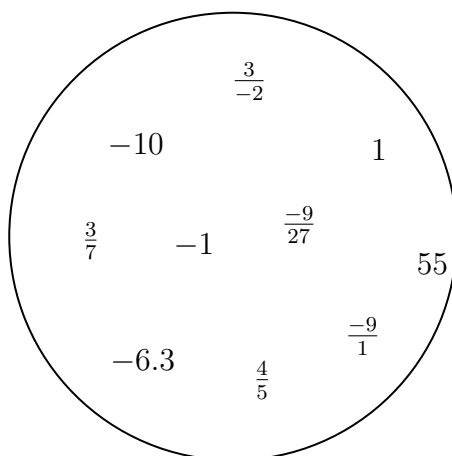
Transposing 16 to other side, the result is _____.

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



Question: 25

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: 26

$\frac{-3}{-4}$ 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: 27

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

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



Question: 28

Fill the boxes

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

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.

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

Question: 29

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: 30

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 $2\frac{7}{4} = \text{_____}$

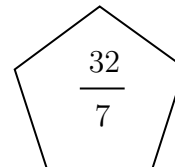
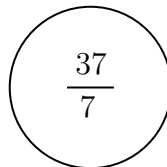
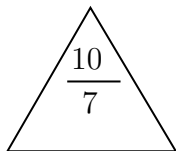
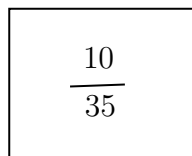
$$2\frac{7}{4} \times \frac{2}{3} = \frac{\square}{\square} \times \frac{2}{3} = \frac{\square}{\square}$$

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

$$\frac{12}{40} \div \text{---} = \frac{12}{40} \times \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$$

Then the answer 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 = $10 \times \text{---} \times \text{---}$
 10 is raised to the power of ____ = $(10)\text{---}$

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 = ____.
 $(-2)^3 = ___ \times ___ \times ___ = ___.$

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 **Properties of integers**



Question: 37

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, $a + b = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$
 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: 38

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: 39

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.

Comparing Quantities

Topics to be Improved	
Equivalent ratios	Basic of proportion
Percentage	Basic of percentage

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



Question: 40

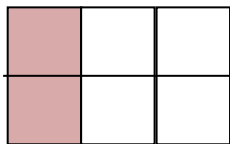
If $a:b$ and $c:d$ are equivalent ratio, then it can be expressed as _____

Answer:

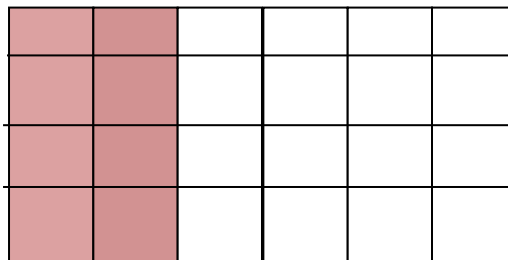
A _____ (proportion / ratio) is used to express _____ (one/two) equivalent ratios.
Standard form to express proportion is _____.

Question: 41

Find the ratio of shaded part to unshaded part of A and B. Are the two ratios equivalent ?



A



B

Answer:

Shaded part of A = _____, Unshaded part of A = _____.
Ratio of shaded to unshaded parts of A is _____. Fractional form = _____.
Shaded part of B = _____ ,
Unshaded part of B = _____.
Ratio of shaded to unshaded parts of B is _____.
Fractional form = _____.
Fraction form of A _____ (equal/ not equal) to Fraction form of B.

Question: 42

If $a : b :: c : d$ is proportion, shade the correct expression

$a = \frac{bc}{d}$

$c = \frac{ad}{b}$

$ad=cd$

Answer:

Two equivalent ratio which are proportion, it can be written as $a : b :: c : d$
 or _____ = _____ (in fraction) .

First and fourth term are called _____ and second and third term are called _____.

In proportion, product of extreme terms is _____ (equal to/ not equal to) product of middle terms.

Therefore, $a \times d =$ _____,

then $a =$ _____ and $c =$ _____

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



Question: 43

2% can be written as

Answer:

Percentages are numerators of fractions with denominator _____

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

Question: 44

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 $\frac{\boxed{}}{\boxed{}}$

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

Question: 45

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

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

Algebra

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

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



Question: 46

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: 47

Classify the following expression into monomial, binomial and polynomial.

1. $7m + n + 2$

2. $8x^2 + 0$

3. $7xy + 4m$

Answer:

1. The terms in expression $8x^2 + 0$ are _____.

Here, expression has _____ term and it is a _____.

2. 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: 48

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

Answer:

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

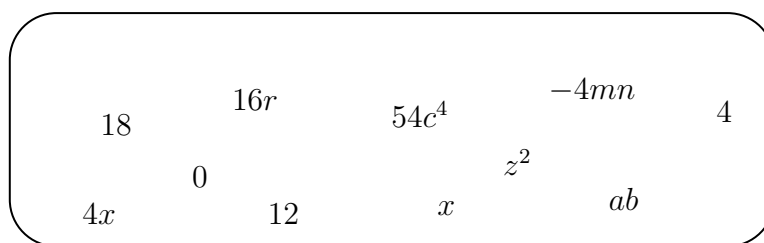
Here, the expression has _____ terms and it is called a _____ expression.

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



Question: 49

Separate the variables and constants for all the terms given in the box



Answer:

In algebraic expression, variables are represented by _____ and Constant is a _____.

Terms	Constants	Variables

Question: 50

Mark the expression that contains two terms.

$3x + 5$ $12a$ $4xy$ $12a + b + 1$ $7m + 0$

Answer:

The terms in the expression $3x + 5$ is/are _____.

The terms in the expression $12a$ is/are _____.

The terms in the expression $4xy$ is/are _____.

The terms in the expression $12a + b + 1$ is/are _____.

The terms in the expression $7m + 0$ is/are _____.

Question: 51

Shade the outline of circle that contains the term of the given expression.

Diagram illustrating the terms of the expansion of $(m+n)^2$ arranged horizontally:

- m^2
- $7mn$
- $6m^2$
- $-7mn$
- mn
- nl
- $-mn$

Here, _____, _____, _____ are the terms of the given expression.



Diagram showing seven circles arranged horizontally, each containing a label: $3a$, $3a^2$, $3b$, $6a$, $3c$, $33a$, and $9a$.

Here, like terms are _____.

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

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

(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 **Solving an equation**



Question: 55

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

Answer:

The value of the given smiley \odot is _____.

Substituting the value in the expression $= 5(\text{---}) + 5 =$ _____ + _____ = _____.

Question: 56

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

$$7 \square + 3 = -4$$

Answer:

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

$$7 \times \text{---} + 3 = \text{---}$$

$$7 \times \text{---} + 3 = \text{---}$$

$$7 \times \text{---} + 3 = \text{---}$$

$$7 \times \text{---} + 3 = \text{---}$$

$$7 \times \text{---} + 3 = \text{---}$$

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

Question: 57

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

$$2x = 2 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$2x - 4 = 2 \times \underline{\hspace{2cm}} - 4 = \underline{\hspace{2cm}}$$

$$x + 3 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$\frac{1}{2}x = \frac{1}{2} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

$$5x \times 1 = 5 \times \underline{\hspace{2cm}} \times 1 = \underline{\hspace{2cm}}$$

Arranging in descending order: $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.

Their respective algebraic terms are $\underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}, \underline{\hspace{1cm}}$.

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



Question: 58

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

Answer:

The given two expressions are $\underline{\hspace{2cm}}$ and $\underline{\hspace{2cm}}$.

The two terms will get added only if they are $\underline{\hspace{2cm}}$ (Like/ Unlike) terms.

The sum of two expressions = $\underline{\hspace{2cm}} + \underline{\hspace{2cm}}$.

The answer is $\underline{\hspace{2cm}}$

Question: 59

	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 $\underline{\hspace{2cm}}$

(ii) Total number of students in school B is $\underline{\hspace{2cm}}$

(iii) How many more teachers are there in school B than school A ? $\underline{\hspace{2cm}}$

Answer:

(i) Number of boys in school A = $\underline{\hspace{2cm}}$,

Number of boys in school B = $\underline{\hspace{2cm}}$.

Total number of boys in school A and school B is $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$.

(ii) Number of boys in school B = $\underline{\hspace{2cm}}$,

Number of girls in school B = $\underline{\hspace{2cm}}$.

Total number of students in school B is $\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$.

Question: 60

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

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

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

$$\begin{array}{r} 3a - 5b \\ (-) \quad 5a - 7b \\ \hline -2a - ____ \end{array}$$