

LaPIS Diagnostic Test Workbook - Mathematics

Name : Boopesh R

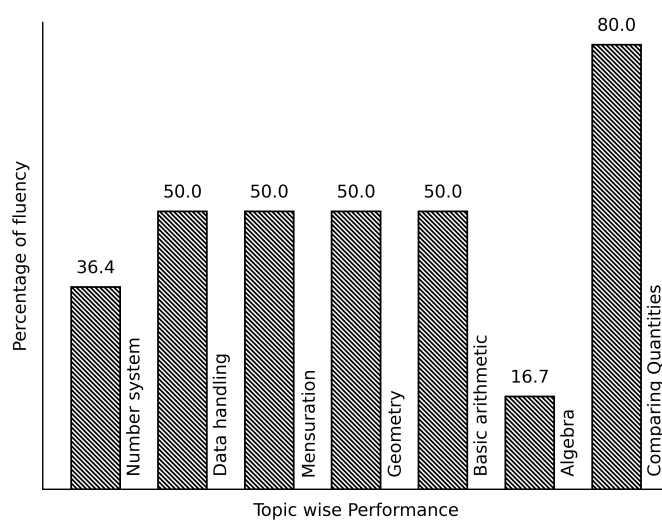
Class : 7

Section : B

School : AKV Public School

Login ID : AKV134

Boopesh R's Performance Report



Score: 18/40

Percentage: 45.0%

Boopesh R'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

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



Question: 1

Find the angles.



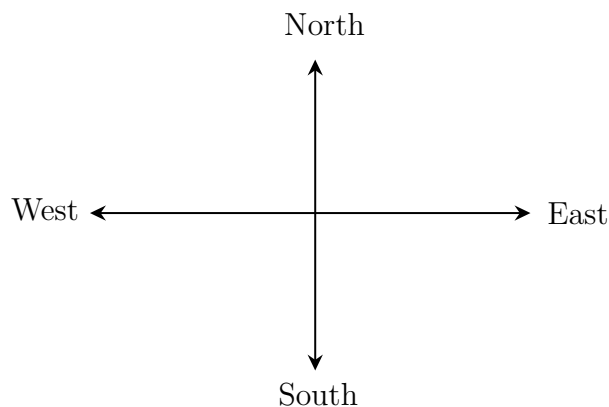
Answer:

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.

Mensuration

Topics to be Improved

Area

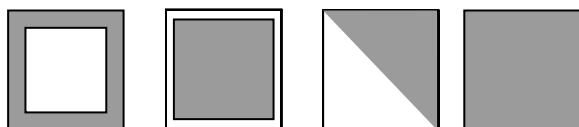
Area of rectangle

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



Question: 4

Find which of the shaded portion in the given shape represent it's area.



Answer:

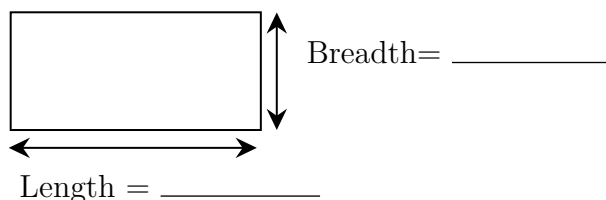
Given figure is _____ in shape.

Area is the _____ (inside/ outside/ boundary) of a shape.

Question: 5

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

Answer:



The garden is in _____ shape.

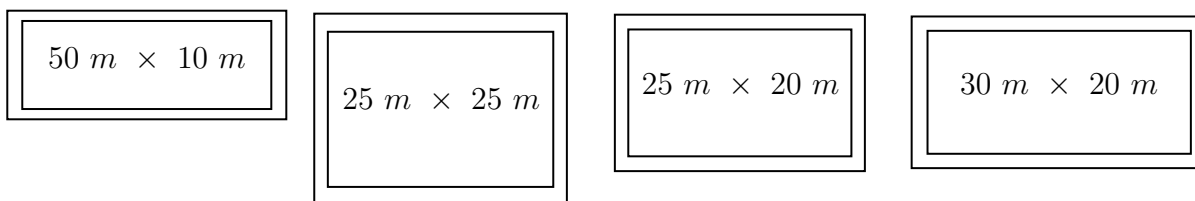
Length of garden is _____ and breadth of garden is _____.

Formula for area of the shape = _____.

The area of garden = _____ x _____ = _____ cm^2

Question: 6

Shade the possible dimension of the door whose area is $500\ m^2$



Answer:

Door is _____ in shape. Area of the _____ shaped door is _____.

Dimensions	Length	Breadth	Area
50m × 10m			
25m × 25m			
25m × 20m			
30m × 20m			

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

Data handling

Topics to be Improved	
Arithmetic mean, mode and median	Mean, Median and Mode
Chance of probability	Sample space in probability

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



Question: 7

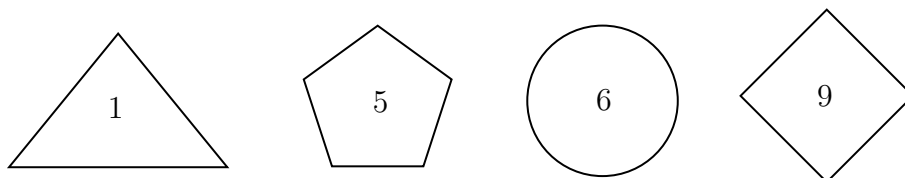
Find the mode of the following data: 5, 15, 23, 5, 32, 44, 72, 55, 6, 3, 5, 65, 45, 67, 24, 19 and 98.

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

Which of the following contains list of all possible outcomes.

Probability

Sample
space

Sure events

Impossible
events

Answer:

Probability is the measure of _____ (chance /number) of an events happenings.

Sample space consists of _____ (possible/ impossible) outcomes.

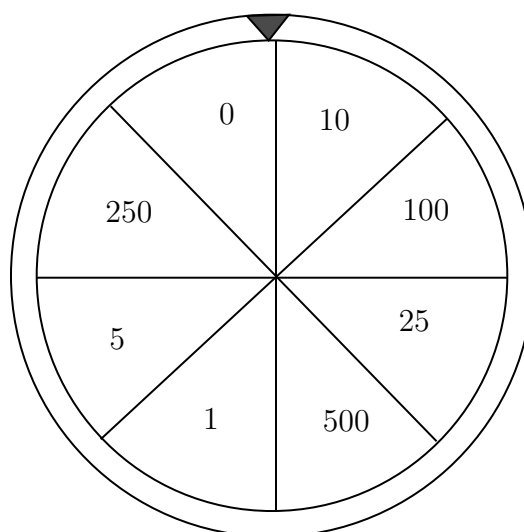
Sure events always _____ (occurs/don't occurs).

Impossible events _____ (occurs/ don't occurs).

Therefore, _____ contains list of possible outcomes.

Question: 11

Write the possible outcomes while spinning the given wheel.



Answer:

Outcomes are _____ (possible/impossible) results of an experiment.
The possible outcomes while spinning wheel are ₹0, ₹10, _____

Question: 12

A bag contains three balls of colour blue, green and red. Write the possible outcomes if two balls are taken out.

Answer:

A bag contains _____, _____ and _____ balls.

If one of the ball is blue in colour, then other ball can be _____ or _____

If one of the ball is green in colour, then other ball can be _____ or _____.

If one of the ball is red in colour, then other ball can be _____ or _____.

Therefore, if two balls are taken out then possible outcomes are blue + _____ ,
_____ + _____, _____ + _____,

Geometry

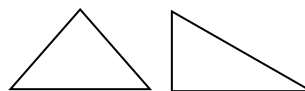
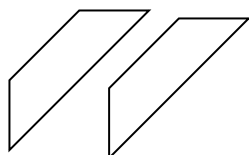
Topics to be Improved	
Criteria for congruence of triangle	Identification of criteria of congruence of triangles
Transversal angle made by transversal	Basics of Transversal angle
Related angles	Basic of angles
Angle sum property of triangle	Angle sum property of triangle
Right angle triangle and pythagoras property	Basics of Pythagoras property

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



Question: 13

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: 14

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 _____.

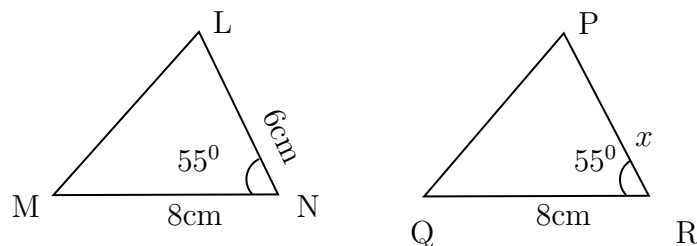
1. In SSS Congruence criteria - ____ (2/ 3/ 5) sides of the triangle are _____ (equal/ not equal) to the three corresponding sides of the other triangle.

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: 15

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



Answer:

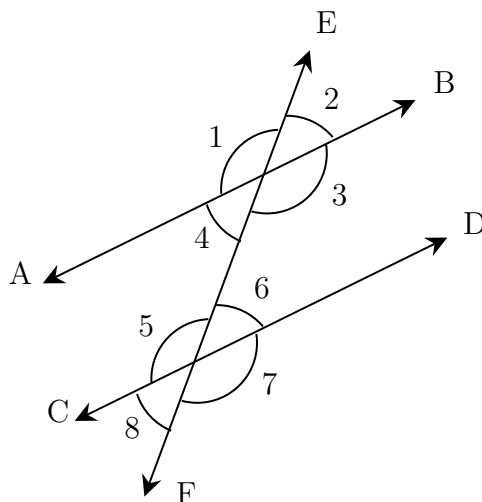
The given two triangles satisfy _____ criteria of congruence.
 By SAS congruence criteria, $MN =$ _____, _____ and $\angle N =$ _____
 The side $MN = 8$ cm in $\triangle LNM$ is equal to the side _____ in $\triangle PRQ$
 The common included angle in $\triangle LNM$ and $\triangle PRQ$ are _____
 The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

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



Question: 16

In given diagram, $\angle 1$ and $\angle 7$ are _____ (alternate / corresponding) angles.



Answer:

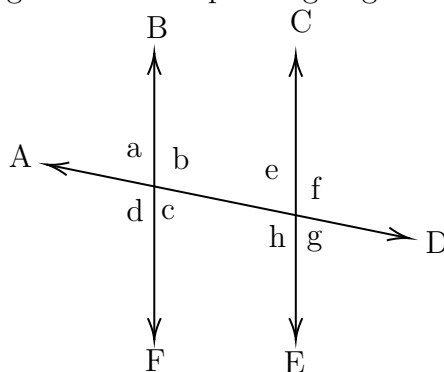
A line that intersects two or more lines at distinct points is called a _____ (transversal/Intersecting line).

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

Angle that lies on different vertices and on the same sides of transversal is _____ angles. Therefore, $\angle 1$ and $\angle 7$ are _____

Question: 17

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



Answer:

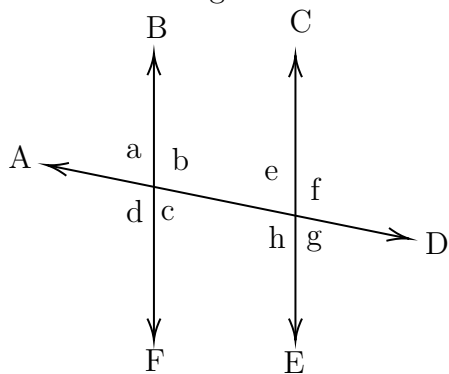
A line that intersects two or more lines at distinct points is called a _____ (transversal/Intersecting line).

In a given diagram, _____ is a transversal line. (BF/AD/CE)

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

Question: 18

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



Answer:

When parallel lines cut by a transversal,

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

Here, alternate angle of $\angle a$ is _____ and its value is _____.

Corresponding angle of $\angle a$ is _____ and its value is _____.

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 .

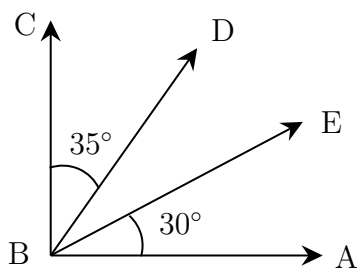
Answer:

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

- (i) The angle formed between two perpendicular rays is 90° 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 180° and it is called _____ angles.

Question: 20

Find the angle of $\angle DBE$



Answer:

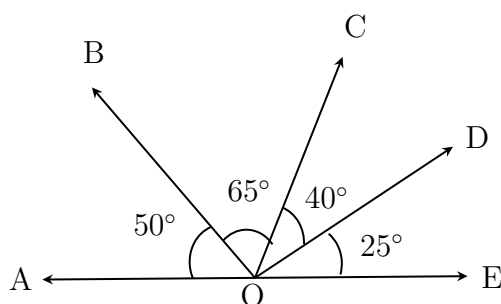
BA and BC are _____ (parallel / perpendicular) rays.
The angle formed between this rays is ____, $\angle ABC =$ ____.

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

Therefore, $\angle DBE =$ _____

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 $\angle BOC$, _____

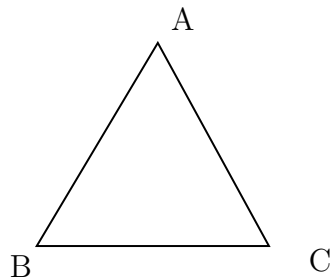
Hi, here in this video you will learn **Angle sum property**



Question: 22

Sum of the angles of triangle is _____.

Answer:



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

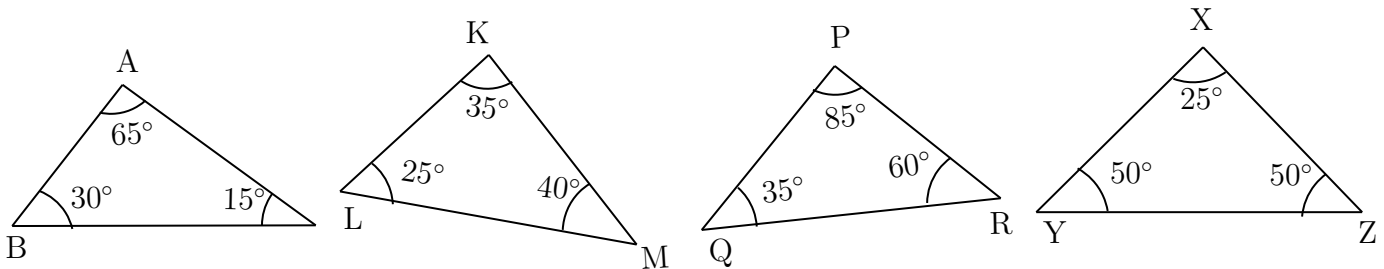
Angle sum formula = $(n - 2) \times 180^\circ$, n = number of sides

Triangle has sides.

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

Question: 23

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: 24

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 **Pythagoras property**



Question: 25

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

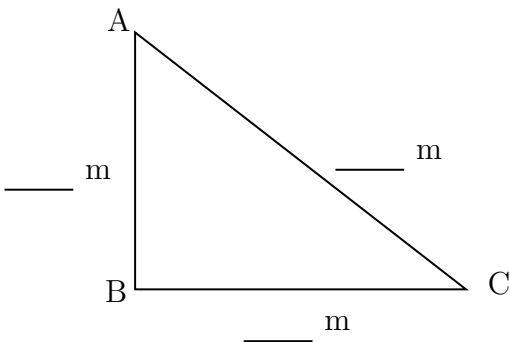
Answer:

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: 26

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.

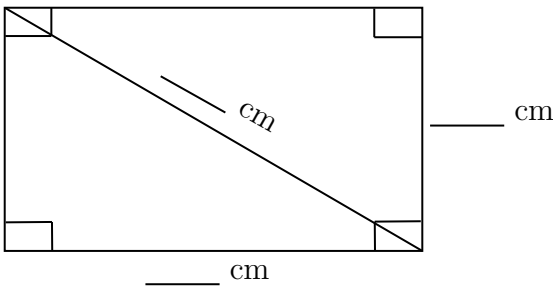
By Pythagoras theorem, $(\text{_____})^2 = (\text{_____})^2 + (\text{_____})^2$
 $\text{_____} = \text{_____} + \text{_____}$

Therefore, hypotenuse of the triangle is _____.

Question: 27

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

Therefore, diagonal of the rectangle is _____

Number system

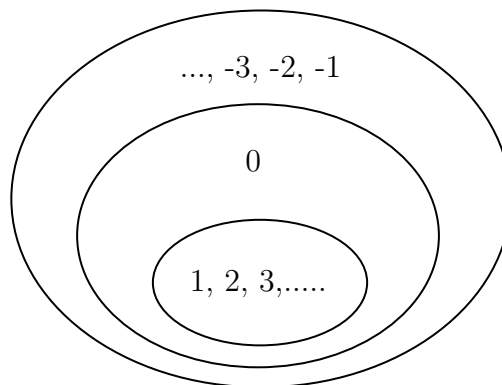
Topics to be Improved	
Integers	Basics of integers
Fractions	Multiplication of fractions, Division of fraction
Operations on rational numbers	Subtraction of rational numbers, Division of rational numbers
Decimals	Multiplication and division of decimals
Positive and negative rational numbers	Identification of positive rational numbers

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



Question: 28

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: 29

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

Whole numbers	Negative numbers	Integers	Natural 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: 30

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 **Multiplication on fractions**



Question: 31

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.

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

Question: 32

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

Question: 33

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

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

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



Question: 34

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

Answer:

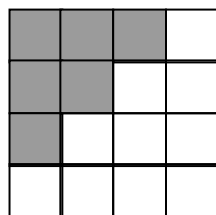
Fractions with same denominators are called _____ (like/ unlike) fractions.

Fraction can be added only if they are _____ (like/ unlike) fractions.

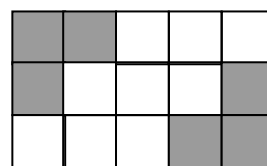
$$\frac{-3}{3} + \frac{1}{3} = \frac{\quad}{3} =$$

Question: 35

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



A



B

Answer:

Total number of square in box A = _____.

Number of shaded square in box A = _____

Shaded part of box A in fraction = _____

Total number of square in box B = _____.

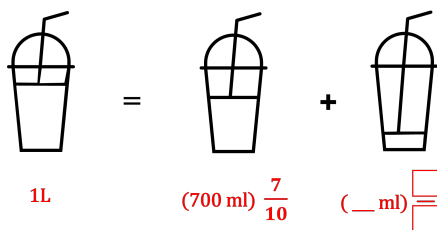
Number of shaded square in box B = _____.

Shaded part of box B in fraction = _____.

Shaded part of box A + Shaded part of box B = _____ + _____ = _____

Question: 36

Find the missing values in the given figure.



Answer:

One litre = _____ ml

$\frac{7}{10}$ of one liter = $\frac{7}{10} \times$ _____ ml = _____ ml

Given: $1 = \frac{7}{10} +$ _____

Transposing $\frac{7}{10}$ to other sides, $1 - \frac{7}{10} =$ _____

Therefore, result is _____.

Hi, here in this video you will learn **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 $8/3$ 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 **Basics of decimals**



Question: 40

Shade 0.4 part of the given shape.

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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: 41

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: 42

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 _____ .

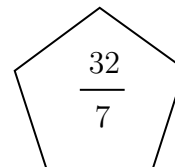
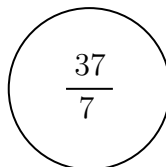
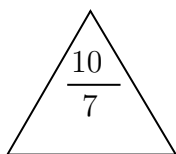
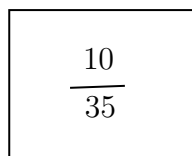
The cost of 15 chocolates = cost of one chocolate \times _____ = _____ \times _____ = _____

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



Question: 43

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: 44

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: 45

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

Answer:

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

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

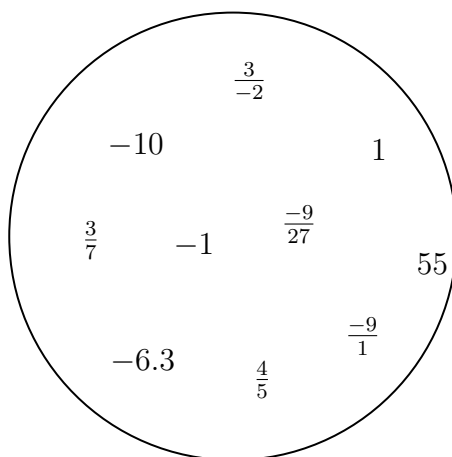
Then the answer is _____

Hi, here in this video you will learn **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	
Conversion of fraction into percentage	Conversion of fraction into percentage

Hi, here in this video you will learn **Converting fraction into percentage**



Question: 49

Complete the box in the given equation.

$$5\% = \frac{5}{\boxed{}}$$

Answer:

Percentage are the fraction with the denominator _____.

Therefore, 5% can be expressed as _____

Question: 50

Mark the correct conversion form of fraction $\frac{1}{2}$ to percentage.

- (i) $\frac{1}{2} \times \frac{50}{50} = \frac{50}{100} = 50\%$
- (ii) $\frac{1}{2} \times \frac{100}{100} = \frac{100}{200} = 200\%$
- (iii) $\frac{1}{2} \times 100 = \frac{100}{2} = 50\%$

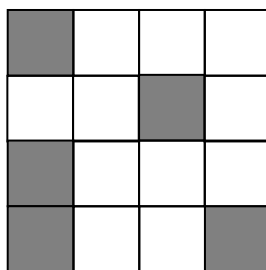
Answer:

To convert fraction into percentage, the value of _____ (denominator / numerator) should be 100 or _____ (multiply / divide) the fraction with 100 %.

Therefore, correct conversion form is _____

Question: 51

Find the percentage of shaded part of square.



Answer:

The square shape is divided into _____ parts.

Number of shaded part of square is _____.

Shaded part of square in fraction is _____

To Convert $\frac{\square}{\square}$ into percentage , $\frac{\square}{\square} \times 100$

Algebra

Topics to be Improved	
Monomials, binomials, trinomials and polynomials	Types of algebraic expression
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 video you will learn **Types of expression**



Question: 52

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: 53

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: 54

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

Answer:

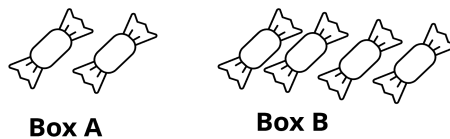
The terms in expression $5m^2 + m + 0$ are _____.

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

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



Question: 55



Box B contains _____ times the number of chocolates in Box A

Answer:

Box A contains _____ chocolates.

Box B contains _____ chocolates.

No. of chocolates in Box B = _____ \times (No. of chocolates in Box A)

Question: 56

Write the equation for the following statement.

Subtracting four times of m from 4 is n

Answer:

Four times of m = _____

Subtracting four times of m from 4 = _____

The equation is _____

Question: 57

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

Sum of $2a$ and 9 Add 9 to the product of a and 2

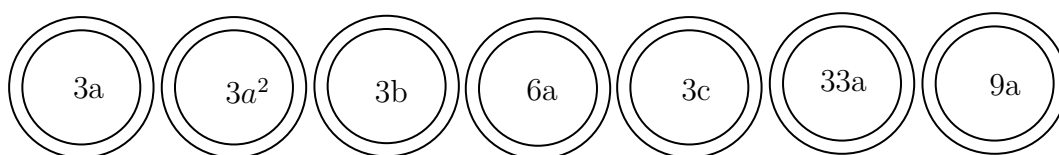
Answer:

Add 9 to the product of a and 2 = _____

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



Shade the like terms.



Here, like terms are _____.

Complete the expression $7r^2 + r \square - 2 \square = \square r^2$

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

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

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 : _____.

	Chocolates	Icecream
Sam		
Ram		

(i) Total chocolates Ram and Sam have :

$$\text{Ram's chocolate} + \text{Sam's chocolates} = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

(ii) How many icecreams Sam have more than Ram :

$$\underline{\hspace{2cm}} \text{ icecream} - \underline{\hspace{2cm}} \text{ icecream} = \underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

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



Question: 61

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

Answer:

The value of the given smiley \odot is $\underline{\hspace{2cm}}$.

Substituting the value in the expression $= 5(\underline{\hspace{1cm}}) + 5 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$.

Question: 62

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 $7\square + 3 = -4$ Substitute the values (-2, -1, 0, 1, 2) in the circle,

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

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

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

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

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

Therefore, $\underline{\hspace{2cm}}$ is the number that can be placed in a box to make the equation correct.

Question: 63

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 $\underline{\hspace{4cm}}$.

The value of x is $\underline{\hspace{2cm}}$.

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 _____, _____, _____, _____, _____.

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



Question: 64

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: 65

	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: 66

Solve the following:

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

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

Answer:

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

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

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