LaPIS Diagnostic Test Workbook - Mathematics

Name	:	**Dhikanth R**
Class	:	**7**
Section	:	**A**
School	:	**AKV Public School**
Login ID	:	**AKV104**

Dhikanth R's Performance Report

Percentage of fluency — Topic wise Performance

Data handling: 75.0, Algebra: 16.7, Mensuration: 100.0, Geometry: 40.0, Number system: 18.2, Comparing Quantities: 40.0, Basic arithmetic: 100.0
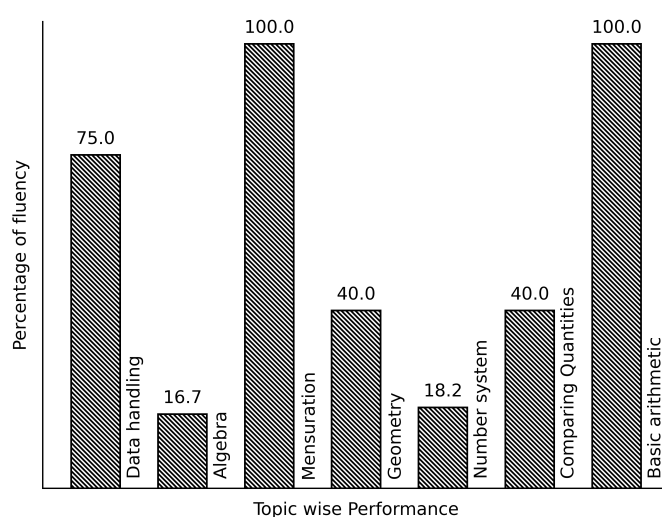
Score: 16/40   **Percentage: 40.0%**

Dhikanth 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

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	
Faces vertex and edges	Idenfication of faces,edges and vertices
Sum of lengths of two sides of a triangle	Sum of two sides of a triangle
Criteria for congruence of triangle	Idenfication of criteria of congruence of triangles
Types of triangle	Basics of types of triangle (sides)
Transversal angle made by transversal	Basics of Transversal angle
Right angle triangle and pythagoras property	Basics of Pythagoras property

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

Question: 4 ....

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).
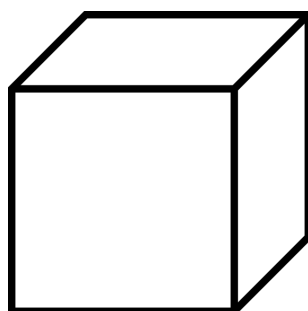
Mark the vertices in the diagram,
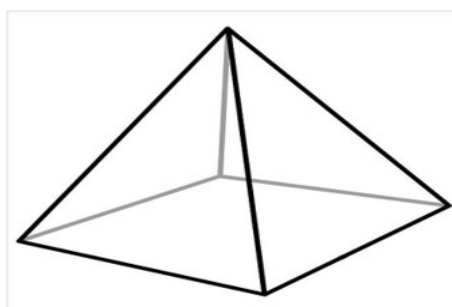
Question: 5 ....

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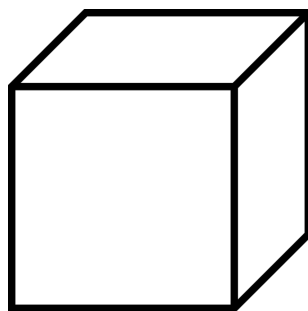
Answer:

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: 6 . . . .

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: 7 . . . .

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

A

70m

30m

B

60m

C
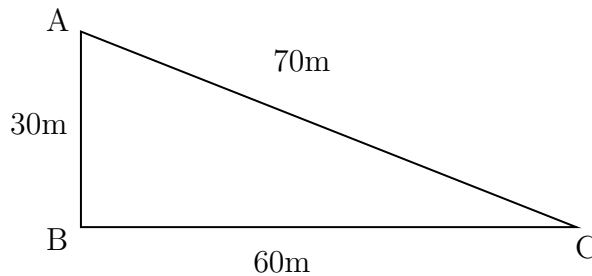
Answer:

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: 8 . . . .

_____ (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,

X

70m

30m

Z

Y

60m

XY + YZ ☐ XZ (<,>, =)

YZ - XY ☐ XZ (<, >, =)
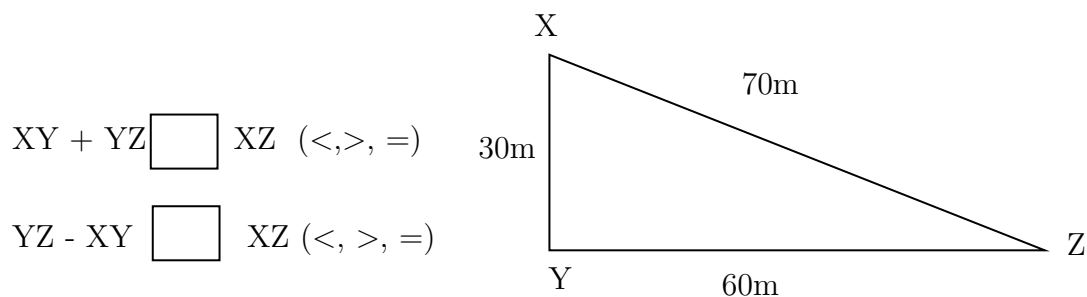
Question: 9 . . . .

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

Answer:

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

2. The difference of the two sides of a triangle is _____ than the third side of the triangle.

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

   Here, difference of the two sides = _____ - _____ = _____

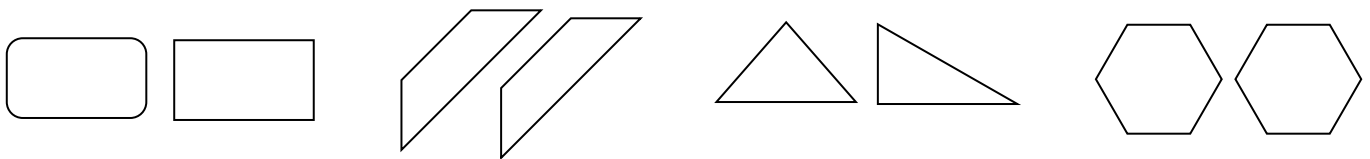   Therefore, the length of the third side is greater than _____

Therefore, length of the third side is greater than _____ but less than _____.

_____

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

_____

Question: 10 ....

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: 11 ....

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 .
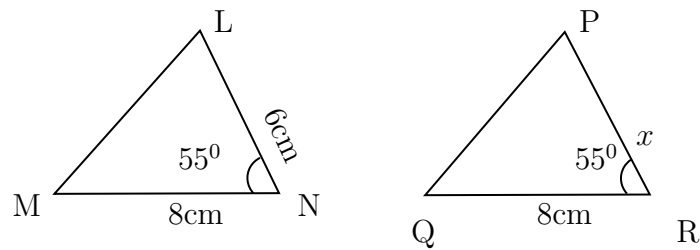
Answer:

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: 12 . . . .

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 ΔLNM 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 _____ ΔLNM.
Therefore, length of side $PR = $ _____

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

Question: 13 . . . .

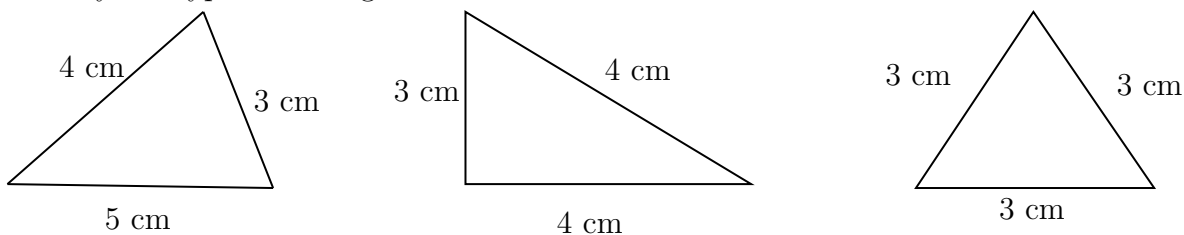Polygon with three sides is called as _____.

Answer:

A polygon is a simple _____ (open / closed) curve made up of only line segments.
Polygon with three sides is called _____.
Draw a diagram of polygon with three sides :

Question: 14 . . . .

Identify the types of triangles.

Answer:

Triangle has _____ sides.

- Triangle with all sides are equal is called _____ triangle.

- Triangle with two sides of equal length is called _____ triangle.

- Triangle with three sides of different length is called _____ triangle.

Question: 15 . . . .

A park is in the shape of an isosceles triangle. If side length of the park is 30ft and 60ft. then the possible length of third side of park can be _____.

Answer:

The shape of the park is _____ .
The shapes has _____ sides and this shape has _____ sides of equal length.
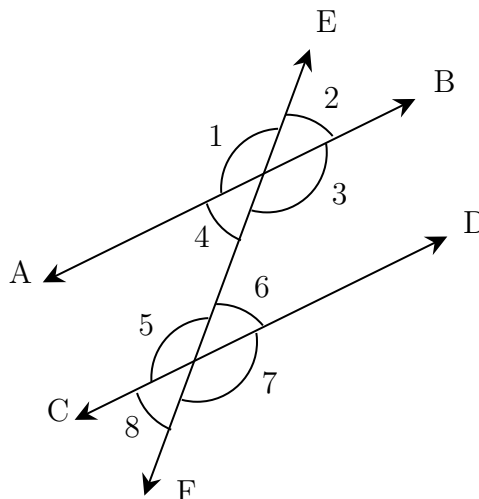*Given:* length of sides of park is _____.
The possible length of third side is _____.

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

Question: 16 . . . .

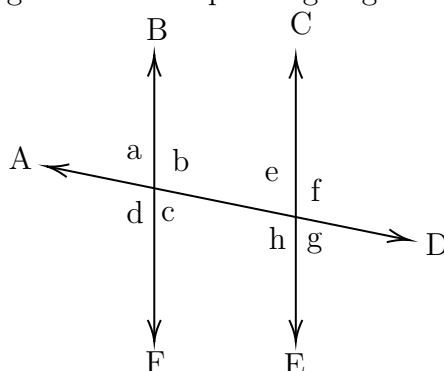In given diagram, ∠ 1 and ∠ 7 are _____ (alternate / corresponding) angles.

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, ∠1 and ∠7 are _____

Question: 17 ....

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

B   C

A   a | b   e
d | c   f
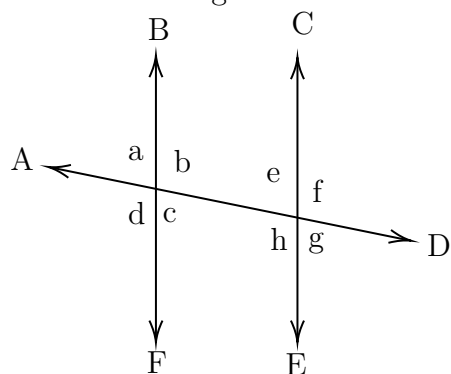h | g   D

F   E

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
∠a and ∠g , ∠b and ∠h,	∠a and ∠e, ∠b and ∠f,

Question: 18 ....

Find ∠e and ∠g if ∠a = 30°.

B   C

A   a | b   e
d | c   f
h | g   D

F   E

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 ∠a is _____ and its value is _____.
Corresponding angle of ∠a is _____ and its value is _____.

Hi, here in this video you will learn **Pythagoras property**

Question: 19 ....

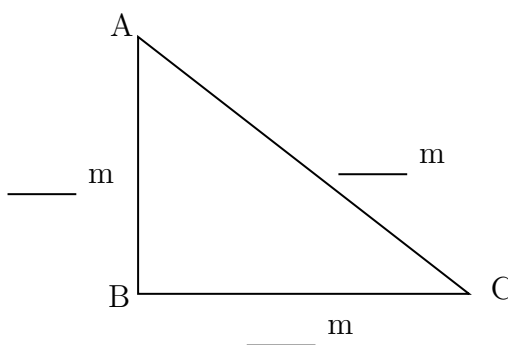In a right angled triangle, square of the _____ = sum of the squares of the legs.

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: 20 ....

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

Answer:

A

_____ m   _____ m

B _____ m C

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, (_____)^2 = (_____)^2 + (_____)^2
_____ = _____ + _____

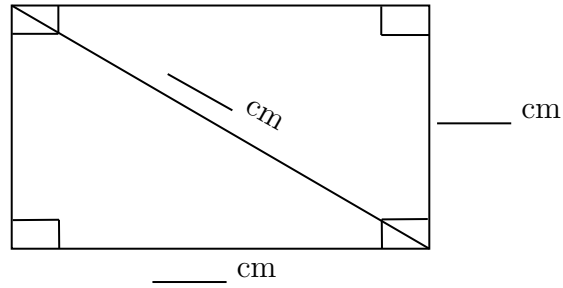Therefore, hypotenuse of the triangle is _____.

Question: 21 ....

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, $(\underline{\qquad})^2 = (\underline{\qquad})^2 + (\underline{\qquad})^2$

$\underline{\qquad} = \underline{\qquad} + \underline{\qquad}$

Therefore, diagonal of the rectangle is _____

Number system

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

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

Question: 22 . . . .

Segregate positive and negative rational number.
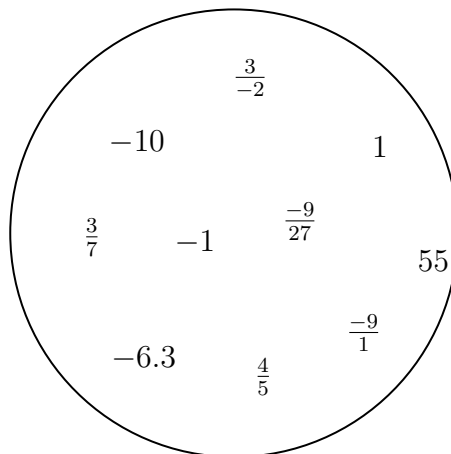
Answer:

- 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: 23 ....

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

Answer:

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

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

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

Question: 24 ....

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

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

Question: 25 ....

Highlight the ring that contains whole numbers.
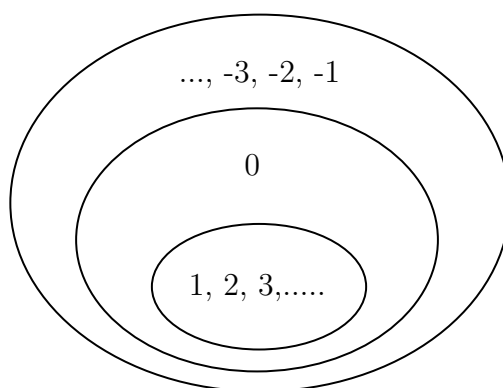
Answer:

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: 26 ....

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

| Whole numbers | Negative numbers | Integers | Naturals numbers |

Answer:

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

Question: 27 ....

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.

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

Question: 28 ....

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: 29 ....

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: 30 ....

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 = _____ ÷ _____ = _____

(i) Total digits after decimal point in decimal number = _____

(ii) Divide the two numbers assuming there is no decimal point.

$$\frac{2010}{15} = \text{_____}$$

(iii) Place the decimal point after _____ digits counting from the right in the quotient after division.

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

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

Question: 31 ....

Match the following based on the properties of integers

i	Closure
ii	Associative
iii	Commutative
iv	Identity

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

Answer:

(i) Closure property :
The sum of integers is always _____(integer / not a integer).
Therefore, _____ + _____ = _____
From the given option _____ satisfies the closure property.

(ii) Associative property :
Rearranging the parentheses (brackets) _____ (does not/ does) change the sum.
Therefore, (a + b) + c = _____.
From the given option _____ satisfies the Associative property.

(iii) Commutative property :
Changing the order of the addends _____ (does not/ does) change the sum.
Therefore, a + b = _____ + _____
From the given option _____ satisfies the Commutative property.

(iv) Identity property : The sum of _____ and any number always returns same number.
Therefore, a + _____ = a
From the given option _____ satisfies the Identity property.

Question: 32 . . . .

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: 33 . . . .

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 **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).

$$1000 \text{ can be written as} = 10 \times \text{_____} \times \text{\_\_\_\_\_}$$
$$10 \text{ is raised to the power of } \text{\_\_\_} = (10)^{\text{\_\_}}$$

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.

$$\text{In this exponential form } (-2)^3 \text{ , base} = \text{\_\_\_, power} = \text{\_\_\_.}$$
$$(-2)^3 = \text{\_\_\_} \times \text{\_\_\_} \times \text{\_\_\_} = \text{\_\_\_.}$$

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 $= (Base)^{\text{\_\_\_}}$

(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 **Multiplication on fractions**

Question: 37 ....

Fill the boxes

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

Answer:

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

$$2 + 4 + \frac{6}{2} \ = \ \frac{2}{1} \ + \frac{4}{\Box} \ + \underline{\quad} = \ \frac{2}{1} \ + \frac{4}{\Box} \ + \frac{3}{\Box} = \frac{\Box}{\Box} = 9$$

Question: 38 ....

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 $= \dfrac{\Box}{\Box} \ \times \ \underline{\quad\quad} \ = \ \underline{\quad\quad}$

Question: 39 ....

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, $\dfrac{(\text{ Whole } \times \underline{\quad\quad\quad})+\text{N}umerator}{\text{D}enominator}$
Improper fraction of $2\frac{7}{4}$ = _____

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

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

Question: 40 ....

Fill in the boxes to make the given expression correct.

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

Answer:

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

Here, dividend = _____ and divisor = _____

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

Question: 41 ....

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 = _____.

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

Question: 42 ....

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

Answer:

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

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

Transposing 8/3 to RHS,

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

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

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

Transposing 16 to other side, the result is _____.

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

Question: 43

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: 44

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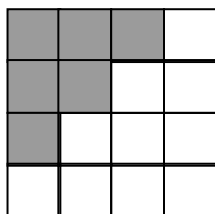
A
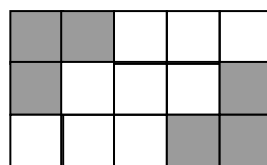
B

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: 45

Find the missing values in the given figure.

1L = (700 ml) $\frac{7}{10}$ + (___ ml) $\frac{\square}{\square}$
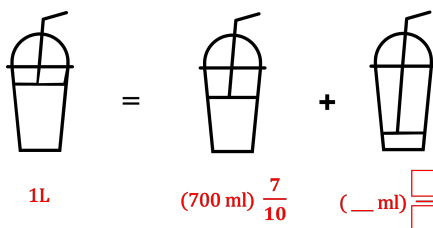
Answer:

One litre = _____ ml

$\frac{7}{10}$ of one liter = $\frac{7}{10}$ x ____ ml = ____ ml

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

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

Therefore, result is _____.

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

Question: 46 ....

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

$$\boxed{\frac{10}{35}} \qquad \triangle\frac{10}{7} \qquad \bigcirc\frac{37}{7} \qquad \pentagon\frac{32}{7}$$
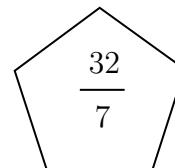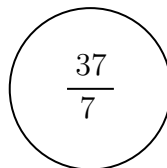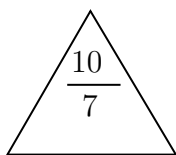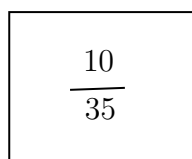
Answer:

$5\frac{2}{7}$ is a _____ (proper/mixed) fraction.

Here, 5 is _____ , 2 is _____ and 7 is _____.

To convert mixed fraction into improper fraction, $\frac{(\text{ Whole} \times \underline{\hspace{2cm}})+\text{N}umerator}{\text{D}enominator}$

$$5\,\frac{2}{7} \; = \frac{(\text{ ___} \times \text{ ___}) + \underline{\hspace{2cm}}}{7} \; = \frac{\square}{\square}$$

Question: 47 ....

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 = _____.

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

Question: 48 ....

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

Answer:

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

$$\frac{12}{40} \div \underline{\qquad} = \frac{12}{40} \times \frac{\boxed{}}{\boxed{}} = \frac{\boxed{}}{\boxed{}}$$

Then the answer is _____

Comparing Quantities

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

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.
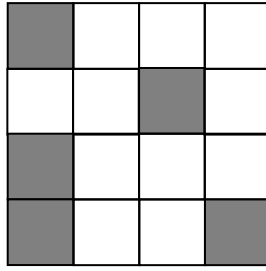
Answer:

The square shape is divided into _____ parts.

Number of shaded part of square is _____.

Shaded part of square in fraction is $\dfrac{\square}{\square}$

To Convert $\dfrac{\square}{\square}$ into percentage , $\dfrac{\square}{\square}$ x 100

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_____

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

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 % can be written in fraction form $\dfrac{\square}{\square}$

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

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 = $\dfrac{\boxed{}}{\boxed{}}$

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

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

Question: 55   ....

Match the following.

Column A			Column B	
i	Principle(P)		a	Interest calculated based on this
ii	Amount (A)		b	Total sum you borrow
iii	Rate (R)		c	Number of years
iv	Time period (T)		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: 56   ....

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: 57 ....

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

Answer:

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

$$\text{Rate of interest} \quad = \frac{\underline{\quad} \text{ x } 100}{\text{Principal x } \underline{\quad}}$$

Substituting values in the formula,

$$\text{Rate of interest} \quad = \frac{\underline{\quad} \text{ x } 100}{\text{Principal x } \underline{\quad}}$$

Rate of interest = _____

Therefore, the rate of interest is _____ %

Algebra

Topics to be Improved	
subtraction of algebraic expressions	subtraction of algebraic expressions
Addition and subtraction of algebraic expressions	Like terms and Unlike terms
Basics of simple equation	Formating of simple equation, Solving of simple equation
Terms of an expression	Identification of terms in an expression

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 _____ and _____.
The two terms will get added only if they are _____(Like/ Unlike) terms.
The sum of two expressions = _____ + _____.
The answer is _____

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 _____

(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: 60 ....

Solve the following:

$$
\begin{array}{r}
13x + \underline{} \\
(+) \quad 12x + 10y \\
\hline
\underline{} + 25y
\end{array}
\qquad
\begin{array}{r}
3a - 5b \\
(-) \quad 5a - 7b \\
\hline
-2a - \underline{}
\end{array}
$$

Answer:

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

$$
\begin{array}{r}
13x + \underline{} \\
(+) \quad 12x + 10y \\
\hline
\underline{} + 25y
\end{array}
\qquad
\begin{array}{r}
3a - 5b \\
(-) \quad 5a - 7b \\
\hline
-2a - \underline{}
\end{array}
$$

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

Question: 61 ....

Shade the like terms.

$$3a \qquad 3a^2 \qquad 3b \qquad 6a \qquad 3c \qquad 33a \qquad 9a$$

Answer:

Given terms are _____.
Two or more term have _____ (same/ different) variables is called like terms.
Here, like terms are _____.

Question: 62 ....

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

Answer:

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

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

Question: 63 . . . .

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

(i) Total chocolates Ram and Sam have : _____.

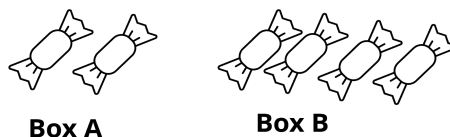(ii) How many icecreams Sam have more than Ram : _____ .

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 **Solving an equation using application**

Question: 64 . . . .

Box A   **Box B**

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 = _____ × (No. of chocolates in Box A)

Question: 65 . . . .

Write the equation for the following statement.
Subtracting four times of m from 4 is n

Answer:

$$\text{Four times of m} = \underline{\hspace{2cm}}$$
$$\text{Subtracting four times of } m \text{ from } 4 = \underline{\hspace{2cm}}$$

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

Question: 66 ....

Compare the given two statements $(<, >, =)$
Sum of $2a$ and 9 $\boxed{}$ Add 9 to the product of a and 2

Answer:

$$\text{Sum of } 2a \text{ and } 9 \ = \underline{\hspace{2cm}}$$
$$\text{Product of } a \text{ and } 2 = \underline{\hspace{2cm}}$$
$$\text{Add 9 to the product of } a \text{ and } 2 = \underline{\hspace{2cm}}$$

Therefore, sum of $2a$ and 9 $\boxed{}$ Add 9 to the product of a and 2

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

Question: 67 ....

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

Answer:

The value of the given smiley ☺ is $\underline{\hspace{2cm}}$.
Substituting the value in the expression $= 5(\underline{\hspace{0.5cm}}) + 5 = \underline{\hspace{1.5cm}} + \underline{\hspace{1.5cm}} = \underline{\hspace{1.5cm}}$.

Question: 68 ....

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 $7\underline{\hspace{1cm}} +3 = -4$ Substitute the values (-2, -1, 0, 1, 2) in the circle,
$7\times \underline{\hspace{0.7cm}}+3= \underline{\hspace{0.7cm}}$
$7\times \underline{\hspace{0.7cm}}+3 = \underline{\hspace{0.7cm}}$
$7\times \underline{\hspace{0.7cm}}+3 = \underline{\hspace{0.7cm}}$
$7\times \underline{\hspace{0.7cm}}+3 = \underline{\hspace{0.7cm}}$
$7\times \underline{\hspace{0.7cm}}+3 = \underline{\hspace{0.7cm}}$

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

Question: 69 . . . .

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

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

Answer:

The given expression are _____.

The value of x is _____.

substituting value of x

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

$$x + 3 = \text{_____} = \text{_____} \qquad\qquad \frac{1}{2}x = \frac{1}{2} \times \text{\_\_\_} = \text{_____}$$

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

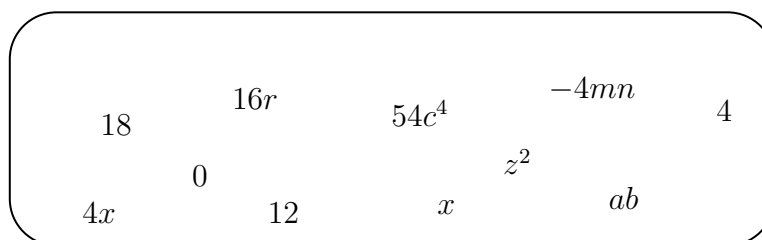Arranging in descending order: ___, ___, ___, ___, ___.

Their respective algebraic terms are ___, ___, ___, ___, ___.

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

Question: 70 . . . .

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

18 $16r$ $54c^4$ $-4mn$ 4	
$4x$ 0 12 x z^2 ab	

Answer:

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

Terms	Constants	Variables

Question: 71 . . . .

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 _____.
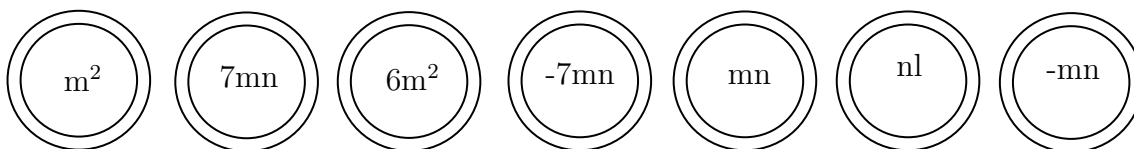The terms in the expression $4xy$ is/are _____.
The terms in the expression $12a + b + 1$ is/are _____.
The terms in the expression $7m + 0$ is/are _____.

Question: 72 ....

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

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

(m²) (7mn) (6m²) (-7mn) (mn) (nl) (-mn)

Answer:

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