

Question bank

Chapter-1 Integers

Q-1 Fill in the blanks:

- (a) One less than a given integer is called its _____.
- (b) One more than the given integer is called its _____.
- (c) _____ is less than every positive integer.
- (d) The integers on the number line form an _____ sequence.

Q-2 True or False:

- (a) A list of numbers following a definite rule which goes on forever is called an infinite sequence.
- (b) Each multiplication fact has two division facts.
- (c) For subtracting an integer, add its opposites.
- (d) 0 is the additive identity where as 1 is the multiplicative identity for integers.

Q-3 One word answer:

- (a) Find the sum of $-18, 14$.
- (b) Find the sum of $-26, -3$.
- (c) Find the sum of $26, -26$.
- (d) Find the sum of $-35, -29$.

Multiple Choice Questions

(a) The word integer means _____ or intact.

- (i) partial
- (ii) whole
- (iii) full

(b) _____ is neither positive nor negative.

- (i) Zero
- (ii) One
- (iii) Two

(c) Every negative integer is _____ than every positive integer.

- (i) bigger
- (ii) larger
- (iii) smaller

(d) Every negative integer is to the _____ of every positive integer.

- (i) left
- (ii) right
- (iii) top

Chapter-2 Fractions

Q-1 Fill in the blanks:

- (a) A fraction has _____ parts.
- (b) A fraction in which the numerator is smaller than the denominator is called a _____.
- (c) A fraction in which the numerator is greater than or equal to the denominator is called an _____.
- (d) A _____ is always greater than 1.

Q-2 True or False:

- (a) An improper fraction can be converted into a mixed fraction.
- (b) Equivalent fractions can be found by multiplying or dividing the numerator and denominator of a fraction by the same non zero number.
- (c) Fraction is a number expressed as a quotient, in which a denominator is divided by a numerator.

(d) The product of a non-zero number and its reciprocal is 0.

Q-3 One word answer:

(a) What is the LCM of 16 and 12.

(b) Simplify : $\frac{5}{9} - \frac{7}{12} + \frac{1}{2}$.

(c) Find the sum of $\frac{5}{9} + \frac{3}{9}$.

(d) Solve $2 - \frac{3}{5}$.

Multiple Choice Questions

(a) _____ represents a part of a whole, consisting of a number of equal parts out of a whole.

(i) Integer

(ii) Fraction

(iii) none of these

(b) A fraction is a number of the form _____.

(i) $p+q$

(ii) $p-q$

(iii) p/q

(c) A fraction has _____ parts.

(i) two

(ii) three

(iii) four

Chapter-3 Decimals

Q-1 Fill in the blanks:

(a) The number which are written in Decimal form are called _____.

(b) The decimal number which has the same number of decimal places are called _____.

(c) The Decimal Numbers which have different number of different number of Decimal places are called _____.

(d) The value of $25.75/100$ is _____.

Q-2 True or False:

(a) When a decimal is divided by 10, the decimal point is shifted to the left by one place.

(b) When a decimal is divided by 100, the decimal point is shifted to the left by two places.

(c) When a decimal is divided by 1000, the decimal point is shifted to the left by three places.

(d) $25.78/100$ is a decimal fraction.

Q-3 One word answer:

(a) Multiply the decimal numbers 5.8×2.5 .

(b) Multiply the decimal number 4.64×0.5 .

(c) Multiply the decimal number 9.5×0.04 .

(d) Multiply the decimal number 5.68×0.145 .

Multiple Choice Questions

(a) (.) is called the _____.

(i) decimal point

(ii) fractional part

(iii) none of these

(b) To multiply a decimal by _____, shift the decimal point 1 place to the right.

(i) 10

(ii) 100

(iii) 1000

(c) The above example ____ can be read as 'five hundred and sixty four and eight tenths'.

(d) The number which are written in Decimal form are called _____ Numbers.

(i) fractional

(ii) decimal

(iii) none of these

Chapter-4 Rational Numbers

Q-1 Fill in the blanks:

(a) _____ are the numbers which are positive integers and includes numbers from 1 till infinity.

(b) Natural numbers including 0 are called _____.

(c) Every natural number is a _____.

(d) _____ is a rational number.

Q-2 True or False:

(a) A rational number is said to be positive, if both the numerator and the denominator are either positive or negative.

(b) A rational number is said to be negative if either its numerator or denominator is negative.

(c) Equivalent rational numbers are equal in value.

(d) To reduce the rational number to its standard form, we divide its numerator and denominator by their HCF ignoring the negative sign if any.

Q-3 One word answer:

(a) Find $\frac{4}{9} + \frac{(-5)}{12}$.

(b) Add $\frac{3}{8}$, $\frac{(-7)}{12}$ and $\frac{11}{18}$.

(c) Subtract $\frac{7}{8}$ from $\frac{5}{12}$.

(d) Simplify $\frac{3}{4} - \frac{2}{3}$.

Multiple Choice Questions

(a) In p/q , p is the _____ and q is the denominator.

- (i) numerator
- (ii) denominator
- (iii) none of these

(b) The set of natural numbers is represented by the letter "_____".

- (i) M
- (ii) N
- (iii) O

(c) Natural numbers including 0 are called _____ numbers.

- (i) positive
- (ii) negative
- (iii) whole

(d) Is zero a rational number?

- (i) yes
- (ii) No
- (iii) Maybe

Chapter-5 Exponents and Powers

Q-1 Fill in the blanks:

(a) _____ are shorthand for repeated multiplication of the same thing by itself.

(b) The word _____ is usually omitted while reading the exponential form.

(c) Any number raised to power _____ given the same number.

(d) When we multiply two numbers having same base then powers should be _____.

Q-2 True or False:

- (a) Exponents are shorthand for repeated multiplication of the same thing by itself.
- (b) The factor which is multiplied by itself again and again is the base and the number of times the factor appears is the exponent.

Q-3 One word answer:

- (a) Express $3^2 \times 4^2$.
- (b) Express $(-2)^5 \times (-3)^5$.
- (c) Express 2,173,600,000 in standard form.
- (d) Explain 0.00453 in standard form.

Multiple Choice Questions

(a) Exponents and ____ both are related to each other.

- (i) powers
- (ii) fractions
- (iii) none of these

(b) _____ is an expression that shows repeated multiplication of the same number or factor.

- (i) Factors
- (ii) Powers
- (iii) Value

(c) The value of the _____ is based on the number of times the base is multiplied to itself.

- (i) exponent
- (ii) powers
- (iii) none of these

(d) a^n is also called the n th power of _____.

- (i) n
- (ii) a

(iii) none of these

Chapter-6 Algebraic Expressions

Q-1 Fill in the blanks:

- (a) A _____ value is not fixed.
- (b) A constant has a _____ value.
- (c) A symbol that represents one for more numbers is called a _____.
- (d) A numerical factor of a term that contains a variable is a _____.

Q-2 True or False:

- (a) For adding coefficients of like terms, the rules for addition of integers apply.
- (b) A polynomial's degree is the highest or the greatest power of a variable in a polynomial.
- (c) A zero polynomial is the one where all the coefficients are equal to one.
- (d) Unlike terms neither be subtracted nor added.

Q-3 One word answer:

- (a) Add $5mn$, $-6mn$, $8mn$, $-4mn$.
- (b) Add $4m - 6n$, $2n - 4m + 2$, $2m - 3mn - 5$.
- (c) Simplify $x + x + x + x + x + x$.
- (d) Simplify $3p + p - p + p - p$.

Multiple Choice Questions

- (a) _____ is the branch of Maths that uses alphabetical letters to find unknown numbers.
 - (i) Fraction
 - (ii) Algebra
 - (iii) none of these
- (b) _____ are represented by letters like a , y , p , m , etc.
 - (i) Variables

(ii) Constants

(iii) none of these

(c) Alphabetical letters are also called _____.

(i) variables

(ii) constants

(iii) both of these

(d) The values which are known in the given expression such as numbers are called _____.

(i) variables

(ii) constants

(iii) none of these

Chapter-7 Comparing Quantities

Q-1 Fill in the blanks:

(a) The _____ is used to compare two quantities.

(b) When we compare two quantities the _____ must be same.

(c) _____ is an equation that defines that the two given ratios are equivalent to each other.

(d) The _____ proportion describes the relationship between two quantities in which an increase in one quantity leads to a decrease in the other quantity.

Q-2 True or False:

(a) Proportions are denoted by the symbol '::' or '='.

(b) The ratio value does not affect when the same non-zero number is multiplied or divided on each term.

(c) The ratio should exist between the quantities of the same kind.

(d) "a" is called the first term or antecedent.

Q-3 One word answer:

(a) Express $1/2 : 1/6$ in the simplest form.

- (b) Express 8 : 64 in simplest form.
- (c) Express 28 : 63 in simplest form.
- (d) Express 27 : 9 in simplest form.

Multiple Choice Questions

(a) Any number without a variable is a _____.

- (i) constant
- (ii) variable
- (iii) fraction

(b) The _____ method is a method in which you find the value of a unit and then the value of a required number of units.

- (i) unitary
- (ii) alternative
- (iii) none of these

(c) A _____ expression has only one term.

- (i) monomial
- (ii) binomial
- (iii) trinomial

(d) Any expression which has one or more terms with the variable having non-negative integers as an exponent is a _____.

- (i) monomial
- (ii) binomial
- (iii) polynomial

Chapter-8 Percentage and its Applications

Q-1 Fill in the blanks:

- (a) _____ means per hundred.

- (b) The symbol for per cent is _____.
- (c) The loss and gain are always calculated on the _____.
- (d) The amount for which the product is sold is called the _____.

Q-2 True or False:

- (a) Gain on Rs.100 is called gain per cent.
- (b) Loss on Rs.100 is called loss per cent.
- (c) The overhead expenses like GST, labour charges, cartage, etc., are included in the cost price.
- (d) The money borrowed is called the principal or the sum.

Q-3 One word answer:

- (a) The total money paid by the borrower to the lender is.
- (b) The additional money paid by the borrower to the lender for having used his money is.
- (c) The duration for which the principal amount is given to someone.
- (d) What is the formula of simple interest.

Multiple Choice Questions

(a) The word per cent means per _____.

- (i) 10
- (ii) 100
- (iii) 1000

(b) Percent is represented by the symbol _____.

- (i) -
- (ii) +
- (iii) %

(c) A percentage is a number or ratio that can be expressed as a fraction of _____.

- (i) 10
- (ii) 100
- (iii) 1000

(d) 0.23 in percentage is _____.

- (i) 2.3%
- (ii) 23%
- (iii) 230

Chapter-9 Lines and Angles

Q-1 Fill in the blanks:

- (a) A _____ is a straight one-dimensional figure.
- (b) A _____ is a line which has one endpoint and endless from another side.
- (c) A _____ is a part of a line with two end-points.
- (d) Vertically opposite angles are _____.

Q-2 True or False:

- (a) Number of rays having a common initial point form angle at that point.
- (b) If a line intersects two or more lines at different points then that line is called Transversal Line.
- (c) The angles which are on the opposite sides of a transversal and do not form a linear pair are called alternate angles.
- (d) The interior angles which are on the opposite sides of a transversal and do not form a linear pair are called alternate interior angles.

Q-3 One word answer:

- (a) Point where the arms meet.
- (b) Two straight line segments form a vertex.
- (c) Which is always equal to 90 degrees.

(d) Which lies between 0 degree and 90 degrees.

Multiple Choice Questions

(a) A _____ is a straight one-dimensional figure, that extends in the opposite directions infinitely.

- (i) circle
- (ii) line
- (iii) none of these

(b) A line segment is a part of a line with _____ end-points.

- (i) two
- (ii) three
- (iii) four

(c) A line can be _____.

- (i) vertical
- (ii) horizontal
- (iii) both of these

(d) A line can be drawn from _____.

- (i) left to right
- (ii) top to bottom
- (iii) both of these

Chapter-10 The Triangle and its Properties

Q-1 Fill in the blanks:

- (a) _____ is a closed curve made up of three line segments.
- (b) Triangle has _____ sides.
- (c) A triangle cannot have more than one _____.

(d) A straight line that joins a vertex of a triangle with the mid-point of the side opposite to it is called _____.

Q-2 True or False:

- (a) An exterior angle of a triangle is greater than either of its interior opposite angles.
- (b) The sum of any two sides of a triangle is greater than its second side.
- (c) The difference of any two sides of a triangle is less than its second side.
- (d) The sum of all three angle of triangle is 90° .

Q-3 One word answer:

- (a) Which triangle has all side lenghts of different measures.
- (b) Which triangle has lengths of two of the three sides are equal.
- (c) Which triangle has all the lengths of the sides are equal.
- (d) Which triangle is a triangle whose all the three interior angles are acute.

Multiple Choice Questions

(a) A triangle has _____ sides.

- (i) three
- (ii) four
- (iii) five

(b) The angles of an equilateral triangle are _____.

- (i) same
- (ii) different
- (iii) none of these

(c) Triangle is a closed curve made up of _____ line segments.

- (i) two
- (ii) three

(iii) four

(d) In triangle, there are ____ angles.

(i) three

(ii) four

(iii) five

Chapter-11 Congruence of Triangles

Q-1 True or False:

(a) The figures are congruent if one figure have exactly the same shape and size as the other.

(b) Two line segments are congruent if they do not have the equal lengths.

(c) Two rectangles are congruent if they have the same length and breadth.

(d) Two circles are congruent if they have the same radius.

Q-2 One word answer:

(a) The integers on the number line form.

(b) If two angles have the same measure in degrees, they are.

Q-3 Fill in the blanks:

(a) Two squares are congruent if they have the same _____ length.

(b) Two triangles are congruent if pairs of corresponding sides and corresponding angles are _____.

(c) There are _____ congruence rules that proves if two triangles are congruent.

(d) Two squares are congruent if their sides are _____.

Multiple Choice Questions

(a) Two angles are said to be congruent if their measures are _____.

(i) equal

(ii) double

(iii) triple

(b) If two figures have exactly same shape and size, they are said to be _____ .

(i) Congruence of Triangles

(ii) congruent

(iii) both of these

(c) The meaning of congruence in Maths is when two figures are similar to each other based on their shape and _____.

(i) size

(ii) side

(iii) colors

Chapter-12 Simple Linear Equations

Q-1 Fill in the blanks:

(a) A _____ equation in one variable is an equation that can be written in the form $ax + b = 0$.

(b) An _____ is a statement of equality with contains one or more unknown quantities.

(c) A statement that does not have an equals (=) sign is called an _____.

(d) Transferring terms from the LHS of an equation to the RHS and vice versa is known as _____ of terms.

Q-2 True or False:

(a) $x + 2y = 4$ is a linear equation in two variables.

(b) $3x + 2y + z = 15$ is a linear equation in three variables.

(c) When the LHS = RHS of an equation, then it is said to be a balanced equation.

(d) Changing the side of the number is called transposing.

Q-3 One word answer:

(a) Solve the equation $8 = x - 3$.

(b) Solve $3x + \frac{1}{5} = 2 - x$

(c) Solve the equation $5a = 30$.

(d) Solve $13a - 7 = 19$.

Multiple Choice Questions

(a) A statement that does not have an equals (=) sign is called an _____.

- (i) inequality
- (ii) quantities
- (iii) both of these

(b) The standard form of linear equations in one variable is represented as:

- (i) $ax + b = 1$
- (ii) $ax + b = 2$
- (iii) $ax + b = 0$

(c) An _____ is a statement of equality with contains one or more unknown quantities.

- (i) statement
- (ii) equation
- (iii) expression

(d) A linear equation in one variable is an equation which has a maximum of one variable of order _____.

- (i) 2
- (ii) 1
- (iii) 3

Chapter-13 Data Handling

Q-1 Fill in the blanks:

(a) _____ is a collection of information gathered by observations, measurements, research or analysis.

- (b) _____ is the data that is collected for the first time through personal experiences or evidence, particularly for research.
- (c) _____ is a second-hand data that is already collected and recorded by some researchers for their purpose, and not for the current research problem.
- (d) The number of times a particular observation occurs is called its _____.

Q-2 True or False:

- (a) Data is organised and represented graphically so that it becomes easy to understand and interpret.
- (b) The “pie chart” is also known as a “circle chart”.
- (c) The total value of the pie is 50%.
- (d) The graphical representation of data using bars of uniform width drawn vertically or horizontally with different lengths is called as bar graphs.

Q-3 One word answer:

- (a) Which type of chart or graph that is used to show information that changes over time.
- (b) Which can be defined as a set of rectangles with bases along with the intervals between class boundaries.
- (c) The most common representative value of a group of data is.
- (d) Which is defined as the difference between the highest and the lowest observation.

Multiple Choice Questions

(a) The number of times a particular observation occurs is called its _____.

- (i) data
- (ii) frequency
- (iii) information

(b) Data is a collection of information gathered by observations, measurements, research or _____.

- (i) collection

(ii) research

(iii) analysis

(c) _____ data is the data that is collected for the first time through personal experiences.

(i) Primary

(ii) Secondary

(iii) First

(d) _____ data is a second-hand data that is already collected.

(i) First

(ii) Secondary

(iii) none of these

Chapter-14 Symmetry

Q-1 Fill in the blanks:

(a) _____ is a geometrical concept that is found in most cases including nature.

(b) The axis of the shape which divides the shape into two identical halves, is called a _____ line of symmetry.

(c) A circle has _____ lines of symmetry.

(d) A _____ is an symmetrical polygon.

Q-2 True or False:

(a) Figures or objects without symmetry are called asymmetrical.

(b) A square is also regular because of all its sides are of equal length and each of its angles is a right angle.

(c) Line symmetry exists in nature.

(d) The word 'raised' is usually omitted while reading the exponential form.

Q-3 One word answer:

(a) Every object has a rotational symmetry of order 1 as it would be its original position always after one complete rotation of.

Multiple Choice Questions

(a) The axis of the shape which divides the shape into two identical halves, vertically, is called a _____ of symmetry.

- (i) vertical line
- (ii) horizontal line
- (iii) diagonal

(b) Symmetry is a geometrical concept that is found in most cases including _____.

- (i) nature
- (ii) lines
- (iii) none of these

(c) The word 'raised' is usually omitted while _____ the exponential form.

- (i) listening
- (ii) reading
- (iii) Writing

(d) The lines or axes may be any combination of vertical, _____ and diagonal.

- (i) straight
- (ii) landscape
- (iii) horizontal

Chapter-15 Visualising Solid Shapes

Q-1 Fill in the blanks:

(a) A closed, two-dimensional or flat figure is called a _____.

(b) A triangle is a _____ sided polygon.

(c) _____ are the best example of a triangle shape.

(d) Shapes that can be measured in 3 directions are called _____.

Q-2 True or False:

- (a) The line segment where the faces of three-dimensional figures meet each other is called the edge.
- (b) A pyramid is a three-dimensional shape, with a polygonal base and flat triangular faces, which join at a common point called the apex.
- (c) A pentagonal prism has 7 faces, 15 edges and 10 vertices.
- (d) The corners or points where the edges of the figure meet each other are called vertices.

Q-3 One word answer:

- (a) Which pyramid is a two-dimensional geometric shape that has a square base and four triangular bases that are joined at a vertex.
- (b) Oblique sketches are drawn on.
- (c) Guessing the amount of space available inside a box without actually measuring.
- (d) When we cut any 3D object horizontally or vertically, we get a 2D face of that figure.

Multiple Choice Questions

(a) Shapes that can be measured in 3 directions are called _____ shapes.

- (i) three-dimensional
- (ii) first-dimensional
- (iii) two-dimensional

(b) The line segment where the faces of three-dimensional figures meet each other is called the _____ of the shape.

- (i) vertices
- (ii) edge
- (iii) vertex

(c) A _____ is a three-sided polygon (2-D Shape) which has three edges and three vertices.

- (i) Sphere

(ii) Buckyball

(iii) triangle

Chapter-16 Practical Geometry

Q-1 Fill in the blanks:

(a) The lines which do not have a common meeting point in the same plane, and distance between lines remain same are known as _____.

(b) _____ are equidistant at all points.

(c) The construction of triangles is based on the rules of _____.

(d) When two lines are intersected by a transversal and the alternate angles are _____.

Q-2 True or False:

(a) Angle is not a polygon, because it is not a closed shape.

(b) The lines which do not have a common meeting point in the same plane, and distance between lines remain same are known as parallel lines.

(c) The Pythagoras theorem is used to find the length of the hypotenuse.

(d) A triangle with sides 4 cm, 3 cm and 8 cm sides can be drawn.

Q-3 One word answer:

(a) Which of a line parallel to the given line at a certain distance.

Multiple Choice Questions

(a) Triangle is a polygon that has _____ sides.

(i) three

(ii) two

(iii) four

(b) The word 'Geometry' is derived from _____ Latin words.

(i) one

(ii) two

(iii) three

(c) Angle is not a polygon, because it is not a _____ shape.

(i) open

(ii) closed

(iii) none of these

Chapter-17 Perimeter and Area

Q-1 Fill in the blanks:

(a) The measurement of the part of a plane figure or a region enclosed is called _____.

(b) Perimeter of a shape is defined as the total distance around the shape is called its _____.

(c) Square is a quadrilateral, with _____ equal sides.

(d) The rectangle is a _____.

Q-2 True or False:

(a) Parallelogram is a simple quadrilateral with two pairs of parallel sides.

(b) Triangle is a _____ sided closed polygon.

(c) The circumference of a circle refers to the distance around the circle.

(d) π refers to the ratio of a circle's circumference to its diameter.

Q-3 One word answer:

(a) What is the area of triangle.

(b) What is the Area of parallelogram.

(c) What is the area of square.

(d) What is the Perimeter of square.

Multiple Choice Questions

(a) _____ of a shape is defined as the total distance around the shape is called its perimeter.

- (i) Perimeter
- (ii) area
- (iii) both of these

(b) The measurement of the part of a plane figure or a region enclosed is called _____.

- (i) length
- (ii) area
- (iii) perimeter

(c) Perimeter of a regular polygon = Number of sides $\times$ length of _____ side.

- (i) one
- (ii) two
- (iii) four