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**QUIZ**

**(REAL NUMBERS)**

Answer the following questions

1. What is a lemma?
2. State Euclid's Division Lemma?
3. What does HCF stand for?
4. Give the full form of LCM.
5. State Euclid's division algorithm.

**ORAL TEST**

**(REAL NUMBERS)**

Answer the following questions:

1. Euclid's division algorithm is a technique to compute the _____ of two given positive integers.
2. HCF(124, 24) is _____.
3. "Every composite number can be expressed(factorised) as a product of primes, and this factorisation is unique, apart from the order in which the prime factors occurs". The above statement is called _____.
4. For any two positive integers a and b,
   a x b = HCF(a, b) x _____
5. If a number cannot be written in the form p/q, where p and q are integers and $q \neq 0$, then it is called _____.

**QUIZ**

**(POLYNOMIALS)**

Answer the following questions:

1. What is a quadratic polynomial?
2. What is the degree of a quadratic polynomial?
3. What are the zeros of a polynomial?
4. What is the shape of curve of a quadratic polynomial graph?
5. State remainder theorem.

**ORAL TEST**

1. If P(x) is a polynomial in x, the highest power of x in P(x) is called the _____ of the polynomial P(x).
2. A polynomial of degree 2 is called a _____.
3. The linear polynomial ax + b, $a \neq 0$, has exactly one zero, namely, the x-coordinate of the point where the graph of y = ax + b intersects the _____.
4. A polynomial P(x) of degree n has atmost _____ zeroes.
5. The sum and the product of the zeroes of a quadratic polynomial $x^2 + 7x + 10$ is ____ and _____.

**QUIZ**

**(Pair of linear equations in two variables)**

Answer the following questions:

1. What is a pair of linear equations in two variables?
2. Give the general form of a pair of linear equation?
3. What are the methods of solving a pair of linear equation in two variables?
4. What is the condition for inconsistent solution?
5. What is the shape of curve in graph of a linear equation?

**Oral Test**

1. Every solution (x, y) of a linear equation in two variables, ax+by +c = 0 corresponds to a ____ on the line representing the equation, and vice versa.
2. If the pair of linear equations in two variables have only one common point on both the lines, then we have a _____ solution.
3. A pair of equations which has no solution is called a/an _____ pair of linear equations.
4. Half the perimeter of a rectangular garden, whose length is 4 m more than its width is 36 m. The dimension of the garden are _____ and _____.

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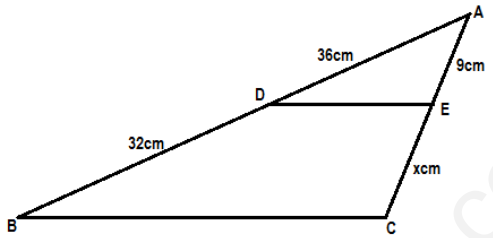
5. A pair of linear equations in two variables can be represented and solved by the graphical method and _____ method.

**QUIZ**
**(Triangles)**

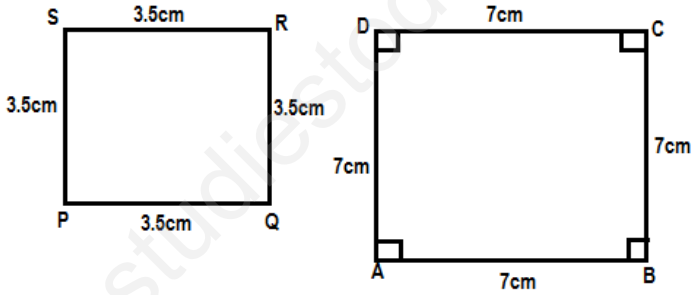
1. What is SAS similarity criterion?
2. What is the relationship between congruency and similarity of figures?
3. What is the criteria for the similarity of two triangles?
4. For what types of triangles is Pythagoras theorem applicable?
5. What is the another name of Basic Proportionality Theorem?

**ORAL TEST**

1. All _____ triangles are similar(equilateral/ isosceles/Scalene)
2. The longest side of a right angled triangle is called _____.
3. In a _____ the square of the hypotenuse is equal to the sum of squares of the other two sides.
4. In the given figure, if DE|| BC, then the value of x is _____

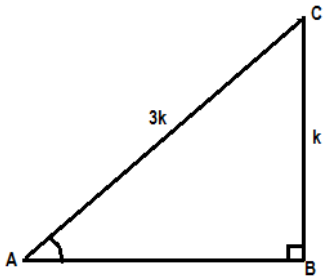



5. State whether the following quadrilateral are similar or not.




QUIZ
(Introduction to Trigonometry)

1. What is trigonometry?
2. What are trigonometric ratios of an acute angle in a right triangle?
3. From the figure find the value of cos A.




4. Write the trigonometric ratios of $60^o$.
5. Evaluate tan $70^o$ / cot $20^o$.

ORAL TEST

1. In a right triangle ABC, right angles at B, sin A = _____.
2. Sec(90o –A) = _____
3. $Sec^2$ A - _____ = 1 , for $0^o \leq A \leq 90^o$.
4. If cot θ= 7/8, then (1+ sin θ)(1 – sin θ)/(1 + cos θ)(1 – cos θ)
5. $(1 – \tan^2 45^o)/(1 + \tan^2 45^o)$= _____

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QUIZ
(STATISTICS)

1. Name the measures of central tendency.
2. What is cumulative frequency?
3. How will you represent the cumulative frequency distribution graphically?
4. How will you find the median of a grouped data graphically with the help of one ogive?
5. How will you find the median of a grouped data graphically with the help of both ogives (i.e of the less than type and of more than type)?

ORAL TEST

1. _____ is the sum of the values of all the observations divided by the total number of observations.
2. Class mark = _____ /2.
3. The formula for finding the mean using the step deviation method is _____.
4. The formula for finding the mode in a grouped frequency distribution is _____.
5. The formula for finding the median of grouped data is _____.

FORMATIVE ASSESSMENT
QUIZ

1. Define the fundamental theorem of arithmetic.
2. Define euclid's division lemma.
3. What is a quadratic polynomial.
4. What is the relationship between zeros and coefficients of a quadratic polynomial.
5. Give the condition for a pair of linear equations to be inconsistent.

ORAL TEST

1. For any two positive integers a and b, HCF(a,b) x LCM(a, b) = _____
2. $5 - \sqrt{3}$ is a/an _____ number.
3. A polynomial of degree 3 is called a _____ polynomial.
4. A quadratic polynomial having the sum and product of its zeroes respectively 5 and 6 is _____ .
5. All _____ triangles are similar. (equilateral/isosceles/scalene).

QUIZ
QUADRATIC EQUATION

1. What is a quadratic equation?
2. How many roots can a quadratic equation have?
3. Give the formula for finding the roots of $ax^2 + bx + c = 0$ ($a \neq 0$)
4. Give the nature of roots of the equation $ax^2 + bx + c = 0$ ($a \neq 0$)
5. Find the nature of the roots of the equation $3x^2 - 2x + 1/3 = 0$

ORAL TEST

1. A real number $\alpha$ is said to be a root of the quadratic equation $ax^2 + bx + c = 0$ , if $a\alpha^2 + b\alpha + c =$ _____.
2. A quadratic equation $ax^2 + bx + c = 0$ has two roots, if $b^2 - 4ac > 0$.
3. The quadratic equation $3x^2 - 4\sqrt{3}x + 4 = 0$ has two _____ roots.
4. The roots of a quadratic equation $2x^2 - 7x + 3 = 0$ are _____ and _____.
5. Two numbers whose sum is 27 and product is 182 are _____ and _____.

QUIZ
(ARITHMETIC PROGRESSIONS)

1. What is an A.P.?
2. What is meant by common difference in an A.P. ?
3. What is the formula for the nth term of an A.P.?

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4. What is the formula for the sum of first n terms of an A.P. ?
5. What is the formula for the sum of first n natural numbers?

ORAL TEST

1. The common difference of a sequence of multiples of 7 is _____.
2. The difference of consecutive terms in an A.P. is always _____.
3. The sum of first 20 natural numbers is _____.
4. The sum of first eight odd natural numbers is _____.
5. The sum of first ten even natural numbers is _____.

QUIZ
(Coordinate geometry)

1. What is abscissa?
2. What is ordinate?
3. What is distance formula?
4. What is the distance of a point p(x,y) from origin?
5. Give the section formula.

ORAL TEST

1. If the area of a triangle is 0 square units, then its vertices are _____.
2. The area of a triangle whose vertices are (1 , -1), (-4, 6) and (-3, -5) is _____ square units.
3. The distance between the points (-5, 7) and (-1, 3) is _____ units.
4. _____ has been developed as an algebraic toll for studying geometry of figures.
5. The distance between the points (a,b) and (-a, -b) is _____ units.

QUIZ
(Some applications of trigonometry or heights and distance

1. Why trigonometry was invented? Give its uses.
2. What is the line of sight?
3. What is the angle of elevation?
4. What is the angle of depression?
5. What is a theodolite?

ORAL TEST

1. The other name of clinometer is _____.
2. If height of clinometer is 1 m, distance between object and clinometer is 40m and angle of elevation of object is $45^o$, then the height of object is _____.
3. A tower stands vertically on the ground. From the point on the ground, which is 25m away from the foot of the tower, the angle of elevation of the top of the tower is found to be $60^o$. The height of the tower is _____.
4. The angles of elevation of the top of a tower from two points at distances a and b from the base and on the same straight line with it are complementary. The height of the tower is _____.
5. A ladder 15m long just reaches the top of a vertical wall. If the ladder makes an angle of $60^o$ with the wall, then the height of the wall is _____.

QUIZ
(CIRCLES)

1. Define tangent to a circle.
2. How many tangent(s) is/are there at a point of circle?
3. How many tangent can be drawn to a circle from a point outside the circle?
4. Define length of a tangent.
5. What is the relation between the lengths of tangents drawn from an external point to a circle?

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ORAL TEST

1. A tangent to a circle intersects it in _____ point(s).
2. A line intersecting a circle in two points is called a _____.
3. A circle can have _____ parallel tangents at the most.
4. The common point of a tangent to a circle and the circle is called _____.
5. The tangent at any point of a circle is _____ to the radius through the point of contact.

QUIZ
(Constructions)

1. What is scale factor?
2. How will you draw a tangent at a point of a circle?
3. How will you locate the centre of a circle, if it is not given?
4. How many tangents can be drawn from a point outside the circle?
5. Is it possible to draw a tangent from a point inside a circle?

ORAL TEST

1. To divide a line segment AB in the ratio m:n (m, n are positive integers), draw a ray AX so that $\angle$ BAX is an acute angle and then mark point on ray AX at equal distances such that the minimum number of these points is _____.
2. To draw a pair of tangents to a circle which are inclined to each other at an angle of $45^o$, it is required to draw tangents at the end point of those two radii of the circle, the angle between which is _____.
3. To divide a line segment AB in the ration 4:5, a ray AX is drawn first such that $\angle$BAX is an acute angle and them points A1, A2, A3… are located at equal distance on the ray AX and the point B is joined to _____.
4. To construct a triangle similar to a given $\Delta$ABC with its sides 3/5 of the corresponding sides of $\Delta$ABC, first draw a ray BX such that $\angle$CBX is an acute angle and X lies on the opposite side of A with respect to BC. To locate points B1, B2, B3, ____ on BX at equal distances and next step is to join _____ to _____.
5. State 'True' or 'False'
    a. By geometrical construction, it is possible to divide a line segment in the ratio $3+\sqrt{5}$: $3-\sqrt{5}$.
    b. A pair of tangents can be drawn from a point P to a circle of radius 4.5 cm situated at a distance of 4 cm from the centre.
    c. By geometrical construction, it is possible to divide a line segment in the ratio $\sqrt{5}$ : $1/\sqrt{5}$.
    d. A pair of tangents can be constructed to a circle inclined at an angle of $175^o$.
    e. From a point P outside the circle we can draw only one tangent.
    f. We cannot locate the centre of a circle if it is not given.

QUIZ
(AREAS RELATED TO CIRCLES)

1. What is circumference of a circle? Give its formula.
2. Name the great Indian mathematician who gave an approximate value of $\pi$.
3. Give the formula for the area of a circle of radius r cm.
4. Give the formula for area of a sector of a circle having radius r and measuring an angle $\theta$ at the centre.
5. How will you find the area of a segment of a circle?

ORAL TEST

1. If the area of a circle is 154 $cm^2$, then its perimeter is _____.
2. Area of the largest triangle that can be inscribed in a semicircle of radius r is _____.
3. The diameter of a circle whose area is equal to the sum of the areas of the two circles of radii 24 cm and 7 cm is _____.
4. If the areas of two circles are equal, then their circumferences are _____.
5. The circles which have the same centre are called _____ circles.

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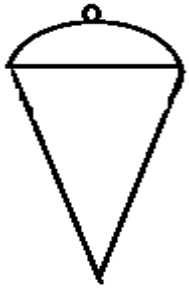
QUIZ
(SURFACE AREAS AND VOLUMES)

1. A cone of height 24cm and radius of base 6cm is made up of modeling clay. A child reshapes it in the form of a sphere. Find the radius of the sphere.
2. A shuttle cork used for playing badminton has the shape of the combination of which basic solids?
3. What is a frustum of a right circular cone?
4. Does a frustum has two circular ends with equal radii?
5. Give the formula for the volume of the frustum of a cone.

ORAL TEST

1. A plumbline(sahul) shown in the figure is the combination of a _____ and a cone.



2. If the radii of the circular ends of a conical bucket which is 45cm high, are 28cm and 7cm then the capacity of the bucket is _____ $cm^3$.
3. The volume of the solid formed by joining two basic solids will actually be the _____ of the volumes of the constituents.
4. The curved surface area of the frustum of a cone is _____, where l=$\sqrt{h^2 + (r_1 - r_2)^2}$
5. If two cubes each of volumes 64cm3 are joined end to end then the surface area of the resulting cuboid is _____.

QUIZ
(PROBABILITY)

1. Define the theoretical probability of an event E.
2. What is the probability of a sure event?
3. What is an elementary event?
4. What are complementary events?
5. One card is drawn from a well shuffled deck of 52 cards. Calculate the probability that the card will be a king.

ORAL TEST

1. The probability of an impossible event is _____.
2. The probability of an event lies between _____ and _____.
3. The sum of the probabilities of all the elementary events of an experiment is _____.
4. A die is thrown once, the probability of getting a prime number is _____.
5. Two coins are tossed simultaneously. The probability of at most one tail is _____.

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