MATHS

BOOKS - KUMAR PRAKASHAN KENDRA MATHS (GUJRATI ENGLISH)

QUESTION PAPER 3 : FOR THE ANNUAL EXAMINATION

Section A

1. $\sqrt{2}+\sqrt{2}$ is a rational number.

Watch Video Solution

2. The mean of first four even numbers is 5

Watch Video Solution

3. A plane has three dimensions.

Watch Video Solution

4. In the Cartesian plane, the axes divide the plane into two parts.

Watch Video Solution

5. For the polynomial p (x), if p (-2) = 0, then ..... is a factor of p (x).

A. 2x-1

B. 2x+1

C. x-2

D. x+2

Answer: D

Watch Video Solution

6. A card is drawn at random from a well shuffled pack of cards . The probability of that card being a king is .....

A. $\frac{1}{52}$

B. $\frac{1}{26}$

C. $\frac{1}{13}$

D. $\frac{3}{13}$

Answer: A::C

Watch Video Solution

7. The median of 21, 17, 13, 33, 19, 23 is.....

A. 19

B. 20

C. 21

D. 23

Answer: B

Watch Video Solution

8. The sides of a triangle m easure 8 cm, 12 cm and 6 cm. Then, the sem iperim eter of the triangle is .....cm.

A. 12

B. 13

C. 14

D. 26

Answer: A::C

Watch Video Solution

9. The form of $0.\bar{6}$ is .....

Watch Video Solution

10. If x + 3 is one of the $x^3 + 2x^2 - mx - 18$. then m = ...

Watch Video Solution

11. The mode of the observations 17, 10, 13, 18, 19, 22, 13, 26, 9, 13 is .....

Watch Video Solution

12. The point corresponding to ordered pair (5, - 3) lies in the ..... quadrant

Watch Video Solution

13. The line joining A (-2 , 5) and B (3, 5) intersects which axis ?

Watch Video Solution

14. If x = 2, y = 3, u = - 2 and v = - 3, in which quadrant does the point (x + y, u + v) lie ?

Watch Video Solution

15. Area of a triangle =____

Watch Video Solution

16. Into how m any chapters did Euclid divide his compilation 'Elements' ?

Watch Video Solution

Section B

1. Find the surface area of a sphere of radius 7 cm.

Watch Video Solution

2. Rationalize the denominator of $\frac{1}{2+\sqrt{3}}$

Watch Video Solution

3. Find any five rational numbers between $\frac{3}{5}$ and $\frac{4}{5}$.

Watch Video Solution

4. Find the remainder when $x^3 + ax^2 + 6x - a$ is divided by x - a .

Watch Video Solution

5. Divide the polynomial $x^3 + 3x^2 + 3x + 1$ by $x + \pi$ and obtain the rem ainder.

Watch Video Solution

6. Obtain four solutions of the equation 2x + y = 7.

Watch Video Solution

7. ABC is a right angled triangle in which $\angle A = 90^\circ$ and AB = AC. Find $\angle$ B and $\angle$ C.

Watch Video Solution

8. In cyclic quadrilateral $ABCD$, $\angle A - \angle C = 20^\circ$. Then, $\angle A =$ .....

Watch Video Solution

9. In a circle with radius 5 cm, the length of a chord lying at distance 4 cm from the centre is ..... cm.

Watch Video Solution

10. Find the value of k, if x = 2, y =1 is a solution of the equation 2x + 3y = k. Find two more solutions of the resultant equation.

Watch Video Solution

11. The angles of a quadrilateral are in the ratio 3:5:9:13. Find all the angles of quadrilateral.

Watch Video Solution

12. State Euclid's Postulate 1 and Postulate 2

Watch Video Solution

13. If a point C lies between two points A and B such that AC = BC, then prove that $AC = \frac{1}{2}AB$. Explain by drawing the figure.

Watch Video Solution

Section C

1. The paint in a certain container is sufficient to paint an area equal to 9.375 m^2. How many bricks of dimensions 22.5 cm $\times$ 10 cm $\times$ 7.5 cm can be painted out of this container ?

Watch Video Solution

2. A joker's cap is in the form of a right circular cone of base radius 7 cm and height 24 cm. Find the area of the sheet required to make 10 such caps.

Watch Video Solution

3. The diameter of a roller is 84 cm and its length is 120 cm. It takes 500 complete revolutions to move once over to level a playground. Find the area of the playground in m^2.

Watch Video Solution

4. Two coins are tossed simultaneously. Find the probability of getting (1) one head, (2) two heads, (3) at least one head and (4) no head

Watch Video Solution

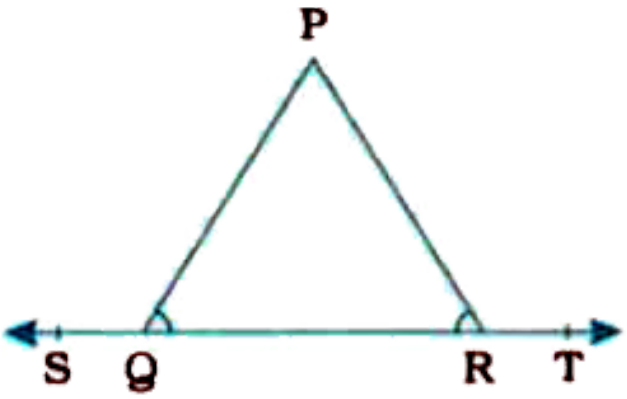
5. The following number of goals were scored by a team in a series of 10 matches : 2, 3, 4, 5, 0, 1, 3, 3, 4, 3 Find the mean, median and mode of these scores.

Watch Video Solution

6. The perimeter of a triangle is 32 cm and two of its sides measure 8 cm and 11 cm. Find the area of the triangle.

Watch Video Solution

7. In the given figure, $\angle PQR = \angle PRQ$, then prove that $\angle PQS = \angle PRT$.

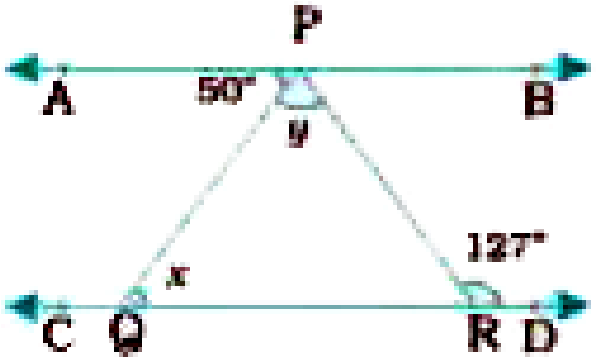


Watch Video Solution

8. Prove that two triangles on the same base and between the same parallels are equal in area.

Watch Video Solution

9. In the given figure, if $AB \mid\mid CD, \angle APQ = 50^\circ$ and $\angle PRD = 127^\circ$, find x and y.



Watch Video Solution

Section D

1. Prove that the angles opposite to equal sides of an isosceles triangle are equal.

Watch Video Solution

2. If a line is drawn through the centre of a circle to bisect a chord, then prove that it is perpendicular to the chord.

Watch Video Solution

3. If each pair of opposite sides of a quadrilateral is equal, then prove that it is a parallelogram.

Watch Video Solution

4. (a) $If x + y + z = 0,$ show that $x^3 + y^3 + z^3 = 3xyz.$

(b) Show that $(a-b)^3 + (b-c)^3 + (c-a)^3 = 3(a-b)(b-c)(c-a)$

Watch Video Solution

5. What are the possible polynomial expressions for the dimensions of the cuboids whose volumes are given below ?

(i) $3x^2 - 12x$

(ii) $12y^2 + 8y - 20.$

Watch Video Solution