Class: IX   Sub-MATHS

Q 1 Find two irrational numbers between 2 and 2.5.   (1)

°Q2 Ordinate of each point on the x-axis is---------.   (1)

Q 3 Simplify $(x+y+z)^2$ (1).

Q 4 IF $x=3+2\sqrt{2}$, then find the value of $(x - \frac{1}{x})^3$.   (2)

Q 5 Write four solution of 2x+y=7.   (2)

Q 6 If the point (3, 4) lies on equation 3y=ax+7, find the value of a.   (2)

Q 5 Two complementary angles are such that two times the measure of one is equal to three times the measure of the other. Find the measure of the larger angle.   (3)

Q 6 IF two lines intersect each other, then prove that their vertically opposite angles are equal.(3)

Q7 Show that the angles of an equilateral triangle are 60° each.   (3)

Q 7 If both (x-2) and (x-1/2) are factors of ax²+5x+c, Show that a=c.   (3)

Q 8 Find the square root of 9.3 geometrically.   (3)

Q 9 IF each side of triangle is doubled, then find the ratio of area of new triangle so formed.(3)

Q10 Prove that cyclic parallelogram is a rectangle.   (3)

Q 11 Equal chords of a circle are equidistant from the center.   (4)

Q 12.The side QR to triangle PQR is produced to a side S.If the bisectors of
$< PQR \ and \ < PRS \ meet \ at \ point \ T, then \ prove \ that \ < QTR = \frac{1}{2} < QPR.$ (4)

Q 13.Prove that sum of three angles of triangle is 180.   (4)

Q 14.Find mean mode and median 2,3,4,5,0,1,3,3,4,3.   (4)

Q 15.The side BC of triangle ABC is produce to point D, the bisector of $< BAC$ intersects the side BC at E, prove that $< ABC + < ACD = 2 < AEC.$ (4)