DAV Sr Sec PS, Jhingurdah

Summer Vacation Home-Work

Subject - Mathematics, CLASS - VIII

Q(1) Find the square root of the following numbers by repeated subtraction method.

(I) 49 (II) 256 (III) 144 (IV) 169

Q(2) Find the square root of following numbers by prime factorisation method.

(I) 28900 (II) 24336 (III) 40000 (IV) 7744

Q(3) Find the square root of the following numbers by long division method.

(I) 9653449 (II) 1471369 (III) 120409 (IV) 64432729

Q(4) Find the values of $\sqrt{3.1428}$ and $\sqrt{0.31428}$.

Q(5) Simplify

(I) $\sqrt{\frac{0.0441}{0.000441}}$ (II) $\sqrt{49} + \sqrt{0.49} + \sqrt{0.0049}$

Q(6) Find the square root of 10 correct to three places of decimals.

Q(7) The area of a square field is $101\frac{1}{400}\ m^2$. Find the length of one side of the field.

Q(8) Find the greatest number of six digits which is a perfect square. Find the square root of this number.

Q(9) Find the smallest number by which 3645 must be divided so that it becomes a perfect square. Also, find the square root of the resulting number.

Q(10) Represent the following numbers on the number line.

(I) $-\frac{5}{6}$ (II) $\frac{5}{2}$ (III) $\frac{8}{3}$ (IV) $-\frac{7}{4}$

Q (11) Find x.

(i) $\frac{9}{-5} = \frac{x}{10}$ (ii) $\frac{8}{7} = \frac{x}{-35}$

Q (12) Arrange in descending order.

$\frac{-3}{10}, \frac{-7}{-5}, \frac{9}{-15}, \frac{18}{30}$

Q (13) If $x = \frac{3}{4}, y = \frac{5}{6}, z = \frac{-7}{8}$, then verify $x + (y+z) = (x+y) + z$

Q (14) Simplify. $\frac{5}{36} + \frac{-7}{8} + \frac{6}{-72} + \frac{-3}{-12}$

Q (15) For $x = \frac{1}{10}, y = \frac{-3}{5}, z = \frac{7}{20}$, find the values of the expression $(x-y)-z$ and $x-(y-z)$. Are they equal.

Q (16) Verify $x \times (y+z) = x \times y + x \times z$ by taking $x = \frac{-3}{7}, y = \frac{2}{5}, z = \frac{-4}{9}$.

Q (17) Show that

$-\frac{4}{3} \times \left(\frac{2}{5} + \frac{-7}{10}\right) = \left(\frac{-4}{3} \times \frac{2}{5}\right) + \left(\frac{-4}{3} \times \frac{-7}{10}\right)$

Q (18) By taking $x = \frac{3}{4}$ and $y = \frac{-5}{6}$ verify that $x \div y \neq y \div x$.

Q (19) Evaluate.

(i) $\left[\left(\frac{1}{3}\right)^6 \div \left(\frac{1}{3}\right)^5\right] \div \frac{1}{3}$ (ii) $\left[4^2 - 3^2\right] \div \left(\frac{1}{7}\right)^2$

Q (20) Find the value of x.

(i) $\left(\frac{3}{4}\right)^{2x+1} = \left[\left(\frac{3}{4}\right)^3\right]^3$

(ii) $\frac{1}{16} \times \left(\frac{1}{2}\right)^2 = \left(\frac{1}{2}\right)^{3(x-2)}$