Assignment

By Utpal Sir.

Std-VII

Sub-Math 20/05/20

(1) Simplify $\left[\left\{\left(\frac{-1}{4}\right)^{2}\right\}^{-2}\right]^{-1}$

(2) Find the value of x in $\frac{5^{3x} \times 2^{5}}{5^{2}} = 5^{3} \times 125$

(3) Write the scientific notation

Large distances are measureed in light years. one light year is about 9,4640,000,008,000 km It is the distance that light travels in a year.

(4) Simplify using law of exponents: $\left[729^{3} \div 729\right] \div 3^{8}$

(5) Simplify and express as a power of a rational number

$$\left(\frac{4}{3}\right)^{2} \times \left(\frac{2}{3}\right)^{3} \times \left(\frac{1}{4}\right)$$

(6) Simplify $\frac{3^{5} \times 10^{8} \times 25}{5^{7} \times 6^{5}}$

(7) Find the value of x (i) $5^{x} \times 25^{2} = 5^{12}$ (ii) $81 \div 3^{x} = 9$

(8) Write 6306175 in the exponential ~~form~~ form.

(9) Find the value of (i) $\left(\frac{3}{8}\right)^{4} \times \left(\frac{3}{8}\right)^{9}$ (ii) $\left[\left(\frac{-1}{3}\right)^{5}\right]^{2}$

(10) Compare the following numbers.

(i) 2.7×10^{12}; 1.5×10^{8} (ii) 4×10^{14}; 3×10^{17}

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I. SHORT AND LONG ANSWER TYPE QUESTIONS

1. Find the product :

(*i*) $\frac{2}{3} \times \frac{4}{5}$ (*ii*) $\frac{1}{5} \times \frac{1}{5} \times \frac{1}{2}$ (*iii*) $\frac{5}{6} \times \frac{2}{5}$ (*iv*) $\frac{4}{5} \times 6$ (*v*) $\frac{1}{7} \times \frac{7}{1}$

2. Find the quotient :

(*i*) $\frac{15}{19} \div \frac{5}{3}$ (*ii*) $\frac{2}{9} \div \frac{1}{3}$ (*iii*) $4\frac{3}{7} \div \frac{3}{5}$ (*iv*) $12\frac{1}{5} \div \frac{1}{5}$ (*v*) $2 \div \frac{3}{5}$

3. Find :

(*i*) $\frac{2}{3}$ of 21 (*ii*) $\frac{5}{12}$ of $\frac{6}{5}$ (*iii*) $\left(\frac{2}{3} + \frac{5}{6}\right) \times \frac{4}{5}$

(*iv*) $\left(\frac{1}{3} + \frac{5}{6} - \frac{1}{6}\right) \div \frac{4}{5}$ (*v*) $\left(\frac{4}{5} + \frac{3}{6} - \frac{5}{12}\right) \div \frac{2}{3}$

4. (*i*) There are 36 people at a party. Suppose $\frac{2}{3}$ of the people are men. How many men and women are present in the party ?

6. Write two rational numbers between -1 and 1.

7. Arrange $\frac{-7}{8}, \frac{-5}{6}, \frac{-3}{4}$ in the ascending order.

8. Arrange $\frac{-5}{6}, \frac{7}{20}, \frac{-9}{15}, \frac{-7}{20}, \frac{3}{5}$ in the descending order.