VIII Test-3

1) Find the area of rectangular park which is $36\frac{3}{5}$ m long and $16\frac{2}{3}$ m broad.

2) Find three rational numbers between $\frac{1}{2}$ and (-2)

3) The sum of two rational numbers is $-\frac{4}{5}$. If one of them is $\frac{-11}{20}$, find the other.

4) The product of two rational numbers is $-\frac{28}{75}$. If one of the numbers is $\frac{14}{25}$. Find the other.

5) Simplify: $\left(-\frac{3}{2} \times \frac{4}{5}\right) \div \left(\frac{9}{5} \times \frac{-10}{3}\right) - \left(\frac{1}{2} \times \frac{3}{4}\right)$

6) Verify $x+y = y+x$, if $x = -\frac{3}{16}$ and $y = \frac{1}{9}$

7) The difference of two numbers is $\frac{5}{9}$. If one of the numbers is $\frac{1}{3}$, find the other number.

8) Multiply the reciprocal of $\frac{7}{8}$ by the reciprocal of $\frac{-2}{21}$

9) Find using distributivity!

$$\left[\frac{7}{5} \times \left(\frac{-3}{12}\right)\right] + \left[\frac{7}{5} \times \frac{5}{12}\right]$$

10) Represent $-\frac{5}{13}, \frac{-1}{13}, 0, \frac{3}{13}, \frac{7}{13}$ on the number line.

VIII Test-3 (Answers)

1) Length of the rectangular park = $36\frac{3}{5} = \frac{183}{5}$ m

Breadth of the rectangular park = $\frac{50}{3}$ m

Area of rectangular park = $l \times b = \frac{\cancel{183}^{61}}{\cancel{5}_{1}} \times \frac{\cancel{50}^{10}}{\cancel{3}_{1}}$

$= 610 m^2$

2) $\frac{1}{2} \quad \frac{-2 \times 2}{1 \times 2}$

$\frac{1}{2} \quad -\frac{4}{2}$

∴ Three rational numbers between $\frac{1}{2}$ and -2 are $0, -\frac{1}{2}$ and -1

3) Let x be the other rational number.

$x + \left(\frac{-11}{20}\right) = -\frac{4}{5}$

$x = -\frac{4^{\times 4}}{5_{\times 4}} + \frac{11}{20} = \frac{-16+11}{20} = -\frac{5}{20} = -\frac{1}{4}$

Hence the other number is $-\frac{1}{4}$

4) Let the other number be x.

$x \times \frac{14}{25} = -\frac{28}{75}$

$x = -\frac{\cancel{28}^{2}}{\cancel{75}_{3}} \times \frac{\cancel{25}^{1}}{\cancel{14}_{1}} = -\frac{2}{3}$

Hence the other number is $-\frac{2}{3}$

5) $\left(-\frac{\cancel{3}}{\cancel{2}_{1}} \times \frac{\cancel{4}^{2}}{5}\right) \div \left(\frac{\cancel{9}^{3}}{\cancel{5}_{1}} \times -\frac{\cancel{10}^{2}}{\cancel{3}_{1}}\right) - \left(\frac{1}{2} \times \frac{3}{4}\right)$

$\left(-\frac{6}{5} \div -6\right) - \frac{3}{8} = \left(-\frac{\cancel{6}^{1}}{5} \times -\frac{1}{\cancel{6}_{1}}\right) - \frac{3}{8}$

$= \frac{1^{\times 8}}{5_{\times 8}} - \frac{3^{\times 5}}{8_{\times 5}} = \frac{8-15}{40} = \frac{-7}{40}$

6) $x = \frac{-3}{16}$; $y = \frac{1}{9}$

LHS, $x+y = -\frac{3^{\times 9}}{16_{\times 9}} + \frac{1^{\times 16}}{9_{\times 16}} = \frac{-27+16}{144} = \frac{-11}{144}$

RHS, $y+x = \frac{1}{9} + \left(\frac{-3}{16}\right) = \frac{1^{\times 16}}{9_{\times 16}} - \frac{3^{\times 9}}{16_{\times 9}} = \frac{16-27}{144} = \frac{-11}{144}$

$\therefore$ LHS = RHS. Hence Proved.

7) Let the other number be x.

$$x - \frac{1}{3} = \frac{5}{9}$$

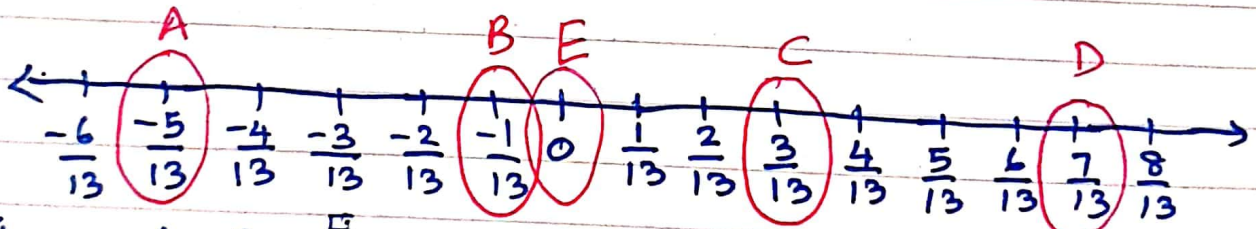
$$x = \frac{5}{9} + \frac{1^{\times 3}}{3_{\times 3}} = \frac{5+3}{9} = \frac{8}{9}$$

$\therefore$ The other number is $\frac{8}{9}$

8) $\frac{\cancel{8}^{4}}{7_{1}} \times -\frac{\cancel{21}^{3}}{\cancel{2}_{1}} = -12$

9) $\frac{7}{5} \times \left[-\frac{3}{12} + \frac{5}{12}\right] = \frac{7}{5} \times \frac{\cancel{2}^{1}}{\cancel{12}_{6}} = \frac{7}{30}$

10)



Thus A, B, C, D and E represents $-\frac{5}{13}$, $-\frac{1}{13}$, $\frac{3}{13}$, $\frac{7}{13}$ and 0 respectively on the number line.