



CH-2 –Operations with rational numbers

1. Find $\frac{3}{7} + \left(\frac{-6}{11}\right) + \left(\frac{-8}{21}\right) + \frac{5}{22}$

2. Find $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$

3. Find using distributive property: (i) $\left\{\frac{7}{5} \times \left(\frac{-3}{12}\right)\right\} + \left\{\frac{7}{5} \times \frac{5}{12}\right\}$ (ii) $\left\{\frac{9}{16} \times \frac{4}{12}\right\} + \left\{\frac{9}{16} \times \frac{-3}{9}\right\}$

4. Find $\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$

5. Simplify: $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$

6. Verify the property $-(-x) = x$ in each of the following.

a) $X = \frac{-7}{11}$

b) $X = \frac{17}{-19}$

7. Multiply $\frac{2}{7}$ by the reciprocal of $\frac{-3}{8}$

8. Which property will you use to simplify $\frac{-2}{5} \times (3 \times \frac{2}{3})$ as $[(\frac{-2}{5} \times 3)] \times \frac{2}{3}$

9. Write:

i) The rational number whose reciprocal is the number itself.

ii) The rational number whose reciprocal is not defined.

iii) The numberhas no reciprocal

iv) The reciprocal of $-1 \frac{2}{7}$ is

v)is not associative for rational numbers.

vi) The rational number $(\frac{-4}{5})$ lies on theside of zero on the number line.

10. Find any seven rational number between the following:

a) $\frac{-3}{5}$ and $\frac{1}{3}$ b) $\frac{-2}{3}$ and $\frac{3}{4}$

11. Represent the following rational numbers on a number line:

i) $\frac{-3}{5}$, $\frac{-13}{5}$, $\frac{4}{5}$