Subject: - Mathematics

PRACTICE PAPER

CBSE-8th

Topic: - Rational Numbers

1. Simplify: - $\frac{-3}{10}+\frac{7}{15}+\frac{3}{-20}+\frac{-9}{10}+\frac{13}{15}+\frac{13}{-20}$ **Ans.** $\frac{-2}{3}$

2. Using commutativity and associativity of addition of rational numbers, express each of the following as a rational number:

a) $\frac{3}{5}+\frac{-7}{6}+\frac{2}{5}+\frac{-5}{6}$ b) $\frac{4}{3}+\frac{-4}{5}+\frac{-2}{3}+\frac{7}{5}-2$ **Ans. a) – 1, b)** $\frac{-11}{15}$

3. Write the negative (additive inverse) of each of the following rational numbers: -

a) $\frac{-2}{5}$ b) $\frac{-17}{5}$ c) $\frac{-11}{-25}$ d) 0

4. Re-arrange suitably and find the sum in each of the following: -

a) $\frac{11}{12}+\frac{-17}{3}+\frac{11}{2}+\frac{-25}{2}$ b) $\frac{1}{8}+\frac{5}{12}+\frac{2}{7}+\frac{7}{12}+\frac{9}{7}+\frac{-5}{16}$ **Ans. a)** $\frac{-141}{12}$ **b)** $\frac{267}{112}$

5. The sum of two rational numbers is $\frac{-3}{5}$. If one of the numbers is $\frac{-9}{20}$, find the other? **Ans.** $\frac{-3}{20}$

6. What should be subtracted from $\left(\frac{3}{4}-\frac{2}{3}\right)$ to get $\frac{-1}{6}$? **Ans.** $\frac{1}{4}$

7. Find: $\frac{3}{4}+\left(\frac{-3}{4}\right)+\left(\frac{-2}{3}\right)+\frac{5}{8}+\left(\frac{-4}{15}\right)$ **Ans.** $\frac{-19}{120}$

8. Express each of the following as a rational number of the form $\frac{p}{q}$:

a) $\frac{15}{2}+\frac{9}{8}+\frac{-11}{3}+6+\frac{-7}{8}$ b) $\frac{6}{7}+1+\frac{-7}{9}+\frac{19}{21}+\frac{-12}{7}$ **Ans. a)** $\frac{235}{24}$ **b)** $\frac{17}{63}$

9. Simplify: - $\left(\frac{-7}{18}\times\frac{15}{-7}\right)-\left(1\times\frac{1}{4}\right)+\left(\frac{1}{2}\times\frac{1}{4}\right)$ **Ans.** $\frac{17}{24}$

10. Verify the property: $x\times(y\times z)=(x\times y)\times z$ by taking:

a) $x=\frac{-7}{3}, y=\frac{12}{5}, z=\frac{4}{9}$ $x=0, y=\frac{-3}{5}, z=\frac{-9}{4}$