MATHEMATICS
CLASS VIII

Assignment No. 1
Ch 1 Rational Numbers

1. Tick the correct alternative :
i. If a is an integer, which of the following is always true

a) $|a| = a$ 　　　　　 b) $|a| < a$ 　　　　　 c) $|a| > a$ 　　　　　 d) $|a| \geq a$

ii. Which of the following rational numbers lies between $\frac{-1}{4}$ and $\frac{1}{4}$?

a) $\frac{-1}{5}$ 　　　　　 b) $\frac{-2}{5}$ 　　　　　 c) $\frac{-1}{3}$ 　　　　　 d) $\frac{1}{3}$

iii. $\frac{-7}{8} - \left(\frac{-3}{5}\right)$ is

a) $\frac{-10}{40}$ 　　　　　 b) $\frac{-11}{40}$ 　　　　　 c) $\frac{-59}{40}$ 　　　　　 d) $\frac{11}{40}$

iv. Which of the following is a false statement?

a) $a \div b$ is a rational number 　　　　　 c) $-a + a = -1$

b) $(a \div b) \div c \neq a \div (b \div c)$ 　　　　　 d) $(a - b) \div c \neq \frac{a}{c} + \left(\frac{-b}{c}\right)$

2. Find 4 rational numbers between $\frac{1}{2}$ and $\frac{3}{4}$.

3. Evaluate : $\left(\frac{2}{11} \times \frac{-22}{15}\right) + \left(\frac{-1}{6} \times \frac{3}{4}\right) + \left(\frac{-1}{21} \times \frac{-3}{5}\right)$

4. Subtract the sum of $\frac{-4}{5}$ and $\frac{1}{4}$ from 1.

5. Evaluate using distributive property : $\frac{9}{5} \times \left(\frac{-3}{11}\right) + \frac{1}{5} \times \left(\frac{-3}{11}\right)$

6. The product of two rational numbers is $\frac{-15}{28}$. If one of them is $\frac{-18}{7}$, find the other.

7. Divide the sum of $\frac{5}{6}$ and $\frac{-4}{5}$ by their product.

8. Bhargav had a piece of ribbon $6\frac{3}{4}$m long. She used $2\frac{5}{12}$m from it. How much ribbon was left with her?

9. The area of a rectangle is $118\frac{4}{5}$sq m. If its breadth is $6\frac{3}{5}$m, find its length.

10. One sixth of the students of a class joined the sports club. Three fifth of these students opted to play table tennis. If 6 students play table tennis, how many students are there in the class?

11. Write 5 rational numbers between $\frac{-2}{3}$ and $\frac{7}{12}$.

12. If $x = \frac{-2}{3}$ and $y = \frac{1}{4}$, find $(x + y) \div (x - y)$.

13. What should be subtracted from the product of $\frac{3}{7}$ and $\frac{2}{5}$ to get $\frac{-4}{35}$?

14. One coin weighs $5\frac{3}{4}$g. Find the weight of 12 such coins.

15. Find at least four rational numbers between $\frac{-1}{2}$ and $\frac{1}{2}$.

In the above question, one of the values is positive and the other one is negative. In the same manner, some people are optimistic (thinking positive) and others are pessimistic (thinking negative). In which category do you belong to?