



## Class 8 Mathematics – Worksheet 1

### Chapter 1: Rational Numbers

#### Topic: Operations on Rational Numbers

#### Section A: Basic Concepts (1 Mark Each)

1. Write the additive inverse of:

a)  $\frac{5}{8}$

b)  $-\frac{3}{7}$

2. Express the following in standard form:

a)  $-\frac{18}{24}$

b)  $\frac{36}{-60}$

3. Identify the rational number between  $\frac{1}{5}$  and  $\frac{2}{5}$ .

4. Write three rational numbers between -1 and 0.

#### Section B: Operations (2 Marks Each)

1. Simplify:

a)  $\frac{3}{4} + \frac{5}{6}$

b)  $-\frac{7}{9} - (-\frac{2}{3})$

2. Multiply and simplify:

a)  $-\frac{2}{5} \times \frac{3}{4}$

b)  $\frac{6}{-11} \times -\frac{5}{9}$

3. Divide the following:

a)  $\frac{8}{15} \div \frac{4}{5}$

b)  $-\frac{9}{16} \div \frac{3}{8}$

4. Verify if:

$(\frac{a}{b}) \times (\frac{b}{a}) = 1$  for  $a = 5, b = 3$ .

**Section C: Word Problems (3 Marks Each)**

1. A ribbon of  $\frac{3}{8}$  meters is cut into 4 equal parts. What is the length of each part?
2. A bottle contains  $\frac{5}{6}$  liters of juice.  $\frac{1}{3}$  liters is poured out. How much juice remains?
3. The product of two rational numbers is  $-\frac{14}{25}$ . If one number is  $-\frac{7}{5}$ , find the other.
4. If  $-\frac{3}{4}$  is subtracted from a number, the result is  $\frac{1}{8}$ . Find the number.

**Section D: Higher-Order Thinking Skills (HOTS) (5 Marks Each)**

1. Find five rational numbers between  $\frac{2}{7}$  and  $\frac{3}{7}$ .
2. A rectangular field measures  $\frac{7}{12}$  km in length and  $\frac{5}{8}$  km in width. Find the area of the field.
3. A class of students scored the following in fractions:  $\frac{3}{5}, \frac{4}{7}, \frac{2}{3}$ . Find the average score.

◆ End of Worksheet

👉 Practice well and attempt all sections carefully.

