

# Maths 7

## Chapter 2: Rational Numbers –Worksheet

### A. Multiple Choice Questions (MCQs)

1. A rational number is expressed as:

- A)  $p/q, q \neq 0$       B)  $p \times q$       C)  $p+q$       D)  $p-q$

2. The reciprocal of  $3/5$  is:

- A)  $5/3$       B)  $3/5$       C)  $-5/3$       D)  $-3/5$

3. The product of two negative rational numbers is:

- A) Positive      B) Negative      C) Zero      D) Undefined

4. Which of these is a terminating decimal?

- A)  $7/8$       B)  $4/7$       C)  $2/9$       D)  $5/11$

5. Rational number  $-7/3$  in decimal form is:

- A)  $-2.33\dots$       B)  $-2.3$       C)  $-2.333\dots$       D)  $-2.03$

### B. Fill in the Blanks

1. A rational number has a numerator and a \_\_\_\_\_.
2. The reciprocal of  $-4/9$  is \_\_\_\_\_.
3. A rational number whose decimal expansion ends is called \_\_\_\_\_ decimal.
4. The number  $0.333\dots$  is a \_\_\_\_\_ decimal.
5. Division by \_\_\_\_\_ is not defined.

### C. Short Answer Questions

1. Write any 3 rational numbers between  $\frac{1}{2}$  and  $\frac{3}{4}$ .
2. Simplify:  $(-\frac{5}{6}) + (\frac{7}{12})$
3. Subtract:  $\frac{3}{5} - (-\frac{2}{3})$
4. Multiply:  $(-\frac{3}{7}) \times (\frac{14}{9})$
5. Divide:  $\frac{5}{6} \div (-\frac{10}{3})$

### D. Word Problems

1. Riya reads  $\frac{3}{5}$  of a book in 1 hour. How much will she read in 3 hours?
2. A container has  $\frac{7}{8}$  litres of milk. Rohan drinks  $\frac{1}{4}$  litres. How much milk is left?
3. The sum of two rational numbers is  $\frac{11}{12}$ . If one number is  $\frac{5}{12}$ , find the other.
4. A ribbon of length  $\frac{4}{5}$  m is cut into pieces of  $\frac{2}{15}$  m each. How many pieces are obtained?
5. By what number should  $\frac{3}{7}$  be multiplied to get  $\frac{9}{14}$ ?

## Answer Key – Chapter 2

### A. MCQs

1. A
2. A
3. A
4. A
5. C

### B. Fill in the Blanks

1. Denominator
2.  $-9/4$
3. Terminating
4. Repeating (Non-terminating repeating)
5. Zero

### C. Short Answers

1. Examples:  $2/3$ ,  $5/8$ ,  $11/16$  (any correct set)
2.  $(-5/6) + (7/12) = -10/12 + 7/12 = -3/12 = -1/4$
3.  $3/5 - (-2/3) = 3/5 + 2/3 = 9/15 + 10/15 = 19/15$
4.  $(-3/7) \times (14/9) = -42/63 = -2/3$
5.  $5/6 \div (-10/3) = 5/6 \times 3/(-10) = -15/60 = -1/4$

### D. Word Problems

1.  $3 \times 3/5 = 9/5 = 1.8$  hours
2.  $7/8 - 1/4 = 7/8 - 2/8 = 5/8$  litres
3.  $11/12 - 5/12 = 6/12 = 1/2$
4.  $(4/5) \div (2/15) = (4/5) \times (15/2) = 60/10 = 6$  pieces
5.  $(9/14) \div (3/7) = (9/14) \times (7/3) = 63/42 = 3/2$