



# INDIAN SCHOOL AL WADI AL KABIR

Class VII, Mathematics (2023-24)

## Worksheet DTQ – RATIONAL NUMBERS

### SHORT ANSWER TYPE QUESTIONS- 7 QUESTIONS. (2 Marks each)

- Q1.** Express the following rational numbers in their standard form.  
a)  $\frac{35}{14}$                       b)  $\frac{81}{-108}$
- Q2.** Check whether the following are equivalent rational number (Show proper working for each).  
a)  $\frac{14}{28}$  and  $\frac{3}{9}$                       b)  $\frac{12}{30}$  and  $\frac{10}{45}$
- Q3.** Find the sum of  $-1\frac{2}{5}$  and  $\frac{-7}{3}$ .
- Q4.** Subtract  $\frac{-13}{6}$  from  $\frac{16}{-9}$ .
- Q5.** Find the product of  $\frac{69}{-5}$  and  $\frac{-125}{23}$ .
- Q6.** Divide  $\frac{-7}{8} \div \frac{14}{32}$ .
- Q7.** Write two rational numbers equivalent to  $\frac{-7}{9}$ .

### SHORT ANSWER TYPE- 5 QUESTIONS. (3 Marks each)

- Q8.** Represent the following rational numbers on the same number line:  
 $\frac{-3}{5}, \frac{1}{5}, 0, 1, -1$ .
- Q9.** Find the reciprocal of  $\left(-5 \times \frac{12}{15}\right) - \left(-3 \times \frac{2}{9}\right)$ .
- Q10.** Multiply  $\frac{2}{19} \times \frac{-57}{51} \times \frac{357}{21}$ .
- Q11.** The sum of two rational numbers is  $\frac{5}{26}$ . If one of the numbers is  $\frac{-7}{26}$ , find the other number.
- Q12.** Ravi purchased  $\frac{25}{2}$  kg of cotton wool for making pillows. If one pillow takes  $\frac{5}{4}$  kg cotton wool, how many pillows can he make?

**LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)**

<b>Q.13.</b>	Insert six rational numbers between $\frac{-1}{5}$ and $\frac{-1}{7}$ .
<b>Q14.</b>	a) Arrange the following rational numbers in ascending order: $\frac{-1}{2}, \frac{5}{6}, \frac{11}{18}, \frac{5}{12}$ . b) Find the value $1\frac{1}{2} + (-\frac{5}{3}) - (-\frac{4}{5})$
<b>Q15.</b>	Do as directed: $(\frac{15}{2} + \frac{1}{5}) \div (\frac{11}{2} - \frac{1}{5})$

**ANSWERS**

<b>Q1.</b>	a) $\frac{5}{2}$ b) $\frac{-3}{4}$	<b>Q2.</b>	a) No                      b) No	<b>Q3.</b>	$\frac{-56}{15}$
<b>Q4.</b>	$\frac{7}{18}$	<b>Q5.</b>	75	<b>Q6.</b>	-2
<b>Q7.</b>	Any two	<b>Q9.</b>	$\frac{-3}{10}$	<b>Q10.</b>	-2
<b>Q11.</b>	$\frac{6}{13}$	<b>Q12.</b>	10	<b>Q13.</b>	Any six
<b>Q14.</b>	a) $\frac{-1}{2} < \frac{5}{12} < \frac{11}{18} < \frac{5}{6}$	<b>Q14.</b>	b) $\frac{19}{30}$	<b>Q15.</b>	$\frac{77}{53}$