



INDIAN SCHOOL AL WADI AL KABIR
Class VIII, Mathematics
WORKSHEET (2025-26)
Rational Numbers

Multiple Choice Questions

Q.1.	What is the sum of the additive inverse and multiplicative inverse of 5?							
	A	$-\frac{2}{5}$	B	$-\frac{24}{5}$	C	$-\frac{2}{25}$	D	$\frac{24}{5}$
Q.2.	The multiplicative inverse of $-2\frac{3}{7}$							
	A	$-\frac{17}{7}$	B	$\frac{17}{7}$	C	$-\frac{7}{17}$	D	$-\frac{11}{7}$
Q.3.	The additive inverse of $(\frac{-5}{7} - \frac{2}{-21})$							
	A	$\frac{13}{21}$	B	$-\frac{13}{21}$	C	$\frac{21}{13}$	D	0
Q.4.	The additive inverse of a negative rational number is:							
	A	a positive rational number	B	a negative rational number	C	Both A & B	D	None of these
Q.5.	There are _____ rational numbers between (-1) and (-2).							
	A	0	B	1	C	10000	D	Infinite
Q.6.	Name the property used: $\frac{2}{3} \times (\frac{4}{7} + \frac{5}{9}) = (\frac{2}{3} \times \frac{4}{7}) + (\frac{2}{3} \times \frac{5}{9})$							
	A	Closure	B	Commutative	C	Associative	D	Distributive
Q.7.	The product of $\frac{3}{7} \times \frac{14}{25} \times (\frac{-35}{36})$							
	A	$\frac{7}{30}$	B	$-\frac{7}{30}$	C	$\frac{32}{42}$	D	$\frac{30}{7}$
Q.8.	The product of a rational number and its multiplicative inverse is:							
	A	-1	B	0	C	1	D	Cannot be determined
Q.9	The product of $3\frac{2}{5}$ with the reciprocal of $-2\frac{4}{15}$							
	A	$-\frac{3}{2}$	B	$-\frac{2}{3}$	C	$-\frac{3}{10}$	D	$\frac{3}{10}$
Q.10	If $x = \frac{-11}{15}$, then $-(-x)$ is:							
	A	$\frac{11}{15}$	B	$-\frac{11}{15}$	C	$-\frac{15}{11}$	D	$\frac{15}{11}$

	LONG ANSWER QUESTIONS:										
Q.11	Find the additive inverse of $(-7\frac{3}{4} \times 5\frac{7}{8})$.										
Q.12	Find the value of $\frac{5}{6} \times \frac{7}{11} + \frac{3}{4} \times \frac{5}{6}$ using suitable property.										
Q.13	Name the property used: a. $\frac{-3}{7} + \frac{5}{19} = \frac{5}{19} + \frac{-3}{7}$ b. $\frac{3}{4} + \frac{-5}{8} = \frac{1}{8}$										
Q.14	Verify: a. $\frac{5}{7} \times (\frac{4}{7} + \frac{-11}{12}) = (\frac{5}{7} \times \frac{4}{7}) + (\frac{5}{7} \times \frac{-11}{12})$ b. $\frac{2}{7} \times (\frac{3}{5} - \frac{-7}{12}) = (\frac{2}{7} \times \frac{3}{5}) - (\frac{5}{7} \times \frac{-7}{12})$										
Q.15	Use appropriate property and find the value of a. $\frac{3}{4} \times \frac{-2}{5} + \frac{1}{3} \times \frac{9}{5} - \frac{3}{4} \times \frac{4}{9}$ b. $\frac{5}{7} \times \frac{-2}{9} + \frac{15}{18} \times \frac{6}{5} - \frac{5}{7} \times \frac{8}{11}$										
Q.16	Represent on a same number line. a. $\frac{1}{5}, \frac{-2}{5}, 0, \frac{3}{5}, 1$ b. $\frac{3}{7}, 0, \frac{-5}{7}, \frac{-4}{7}$										
Q.17	Find 6 rational numbers between $\frac{-2}{5}$ and $\frac{-3}{7}$.										
Q.18	If $p = \frac{-2}{5}, q = \frac{3}{10}$ & $r = \frac{-7}{15}$. Show that $p \times (q + r) = (p \times q) + (p \times r)$										
Q.19.	Fill in the blanks: (i) The product of two rational numbers is always is _____. (ii) The rational number _____ has no reciprocal. (iii) The reciprocal of the reciprocal of a number is _____. (iv) _____ is the multiplicative identity for a rational number.										
Q.20.	CASE STUDY-1: Four children participated in a sack race. The table shows the time each of them took to reach the finish line. <table border="1"> <thead> <tr> <th>Name</th><th>Time taken (in minute)</th></tr> </thead> <tbody> <tr> <td>Albin</td><td>$\frac{33}{40}$</td></tr> <tr> <td>Ben</td><td>$\frac{23}{35}$</td></tr> <tr> <td>Ella</td><td>$\frac{31}{40}$</td></tr> <tr> <td>Ruby</td><td>$\frac{21}{35}$</td></tr> </tbody> </table>  a. Find the total time taken by Albin and Ben in the race. b. Who won the race? c. Arrange their names in ascending order according to the time taken.	Name	Time taken (in minute)	Albin	$\frac{33}{40}$	Ben	$\frac{23}{35}$	Ella	$\frac{31}{40}$	Ruby	$\frac{21}{35}$
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