



INDIAN SCHOOL AL WADI AL KABIR
 Class VIII, Mathematics
WORKSHEET-RATIONAL NUMBERS (MCQ AND CASE STUDY)

Multiple Choice questions

Q.1.	The multiplicative inverse of $2\frac{5}{8}$							
	A	$\frac{-8}{5}$	B	$\frac{-21}{8}$	C	$\frac{5}{8}$	D	$\frac{8}{21}$
Q.2.	Name the property illustrated: $\frac{-35}{8} \times \frac{9}{11} = \frac{9}{11} \times \frac{-35}{8}$							
	A	Associative property of addition	B	Commutative property of multiplication	C	Closure property	D	Associative property of multiplication
Q.3.	Identify the rational numbers that lies between $\frac{-2}{5}$ and $\frac{-3}{5}$.							
	A	$\frac{-4}{10}$	B	$\frac{-3}{10}$	C	$\frac{-2}{10}$	D	$\frac{-5}{10}$
Q.4.	The additive inverse of $\frac{-2}{7} \div \frac{-18}{35}$							
	A	$\frac{-5}{9}$	B	$\frac{5}{9}$	C	$\frac{-9}{5}$	D	$\frac{9}{5}$
Q.5.	The multiplicative identity for rational numbers is							
	A	2	B	0	C	1	D	-1
Q.6.	Name the property illustrated: $\frac{-33}{25} \times 1 = \frac{-33}{25}$							
	A	1 is the additive identity	B	1 is the multiplicative identity	C	associative	D	closure
Q.7.	The sum of additive inverse and multiplicative inverse of 7 is							
	A	$\frac{-6}{7}$	B	$\frac{1}{7}$	C	$\frac{-48}{7}$	D	$\frac{-50}{9}$
Q8.	The product of two rational numbers is $\frac{-14}{27}$. If one of the numbers be $\frac{7}{9}$, then the other number is							
	A	$\frac{-2}{3}$	B	$\frac{2}{3}$	C	$\frac{-3}{2}$	D	$\frac{3}{2}$

Q9.	The reciprocal of a positive rational number is							
	A	negative	B	positive	C	zero	D	one

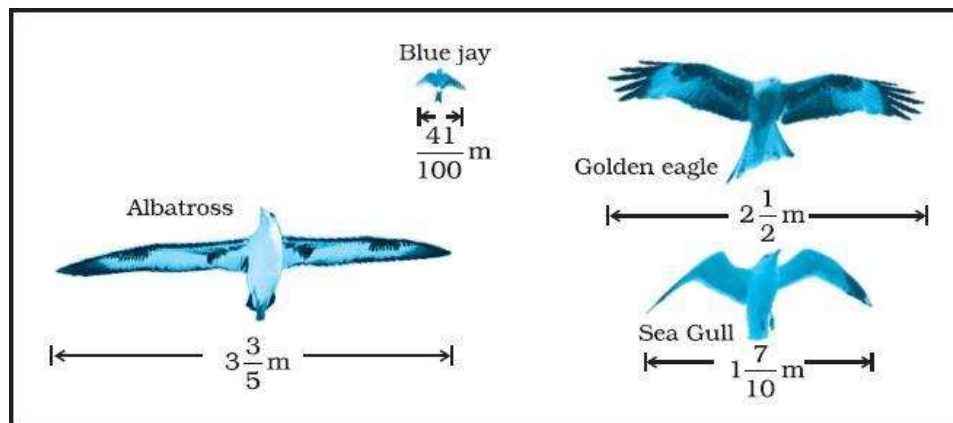
Q10.	$-(-x)$ is same as							
	A	x	B	$-x$	C	$-\frac{1}{x}$	D	$\frac{1}{x}$

FILL IN THE BLANKS

Q11.	The number of rational numbers between -12 and -5 is _____.							
Q12.	The multiplicative inverse of $-4\frac{1}{3}$ is _____.							
Q13.	The rational numbers which are their own reciprocals are _____.							
Q14.	Rational numbers are commutative under _____ and _____.							
Q15.	The product of $-9\frac{4}{3}$ and $\frac{6}{62}$ is _____.							

CASE STUDY:

Birds have many physical features, besides wings, that work together to enable them to fly. They need lightweight, streamlined, rigid structures for flight. The shape of a bird's wing is important for producing lift. Larger wings produce greater lift than smaller wings. So, the smaller-winged birds need to fly faster to maintain the same lift as those with larger wings. The diagram shows the wing spans of four different species of birds.



On the basis of above information, answer the following questions

Q16.	How much longer is the wingspan of an Albatross than the wingspan of a Sea gull?							
	A	$\frac{23}{10} m$	B	$\frac{19}{10} m$	C	$\frac{53}{10} m$	D	$\frac{21}{10} m$

Q17.	How much longer is the wingspan of a Golden eagle than the wingspan of a Blue jay?							
	A	$\frac{209}{10} m$	B	$\frac{209}{100} cm$	C	$20.9 m$	D	$\frac{209}{100} m$

Q18.	Find the value of $\frac{5}{6} \times 1\frac{7}{10} + 2\frac{1}{2} \times \frac{5}{6}$ using suitable property.							
	A	$\frac{7}{2}$	B	$\frac{35}{12}$	C	$\frac{2}{7}$	D	$\frac{12}{35}$
Q19.	Name the property used in this calculation: $\frac{41}{100} + 2\frac{1}{2} = \frac{291}{100}$							
	A	commutative	B	closure	C	associative	D	reciprocal
Q20.	Find the product of : multiplicative inverse of $1\frac{7}{10}$ and additive inverse of $3\frac{1}{11}$							
	A	$\frac{-20}{11}$	B	$\frac{-34}{11}$	C	$\frac{-11}{20}$	D	$\frac{20}{11}$

ANSWERS

1.	D	2.	B	3.	D	4.	A
5.	C	6.	B	7.	C	8.	A
9.	B	10.	A	11.	infinite	12.	$\frac{-3}{13}$
13.	1 and -1	14.	Addition and multiplication	15.	-1	16.	B
17.	D	18.	A	19.	B	20.	A