INDIAN SCHOOL AL WADI AL KABIR

Class VII, Mathematics

WORKSHEET 2 – Rational Numbers

Date: 25/09/2021

Multiple Choice questions

Q.1.	If $\frac{4}{3}=\frac{x}{12}$ then x is							
	A	3	**B**	16	**C**	19	**D**	12
Q.2.	The standard form of rational number $\frac{-21}{28}$							
	A	$\frac{-3}{4}$	**B**	$\frac{3}{4}$	**C**	$\frac{3}{7}$	**D**	$\frac{-3}{7}$
Q.3.	Which of the following rational numbers is not to equivalent to $\frac{3}{5}$?							
	A	$\frac{6}{10}$	**B**	$\frac{-3}{-5}$	**C**	$\frac{9}{15}$	**D**	$\frac{12}{24}$
Q.4.	Which of the following cannot be a rational number?							
	A	$\frac{0}{10}$	**B**	$\frac{0}{-10}$	**C**	$\frac{6}{0}$	**D**	-1
Q.5.	The sum of $\frac{5}{4}+\frac{-25}{4}$ is							
	A	5	**B**	-5	**C**	1	**D**	-1
Q.6.	The product of $\frac{2}{9}$ and $\frac{27}{8}$ is							
	A	$\frac{5}{4}$	**B**	$\frac{25}{72}$	**C**	$\frac{3}{4}$		$\frac{54}{9}$
Q.7.	Divide $\frac{7}{12}\div\frac{-7}{12}$, the result is							
	A	7	**B**	-7	**C**	1	**D**	-1
Q.8.	The reciprocal of a negative rational number is							
	A	always positive	**B**	always negative	**C**	always 1	**D**	always 0
Q.9.	**p**: Every fraction is a rational number. **q**: Every rational number is a fraction.							
	A	**p** is true and **q** is false.	**B**	**p** is false and **q** is true.	**C**	Both **p** and **q** are true.	**D**	Both **p** and **q** are false.
Q.10.	Which of the following rational numbers is negative?							
	A	$\frac{-3}{-7}$	**B**	$\frac{-5}{-8}$	**C**	$\frac{9}{8}$	**D**	$\frac{3}{-7}$
Q.11.	In the standard form of a rational number, the common factor of numerator and denominator is always							
	A	0	**B**	1	**C**	-2	**D**	2
Q.12.	How many rational numbers are there between two rational numbers?							
	A	1	**B**	0	**C**	Infinite	**D**	100

Q.13. In the standard form of a rational number, the denominator is always

	A	0	**B**	Negative integer	**C**	Positive integer	**D**	1

Q.14. Which is greater number in the following.

	A	$\frac{-1}{2}$	**B**	0	**C**	$\frac{1}{2}$	**D**	-2

Q.15. Which of the following statements is correct?

	A	$\frac{3}{-8} > \frac{-12}{-32}$	**B**	$\frac{3}{-8} = \frac{-12}{32}$	**C**	$\frac{3}{-8} < \frac{-12}{32}$	**D**	$\frac{3}{5} > \frac{4}{3}$

Q16.

Fill in the blanks: -

a) The numerator of the rational number $-\frac{4}{3}$ is_____.
b) The rational number _____ is neither positive nor negative.
c) On a number line, $\frac{-1}{2}$ is to the _____ of zero (0).
d) Additive inverse of $\frac{2}{3}$ is _____.
e) The reciprocal of _____ does not exist.

Q17.

Match column I to column II in the following:

Column I		**Column II**	
i	$\frac{5}{7} \div \frac{15}{21}$	**a**	-1
ii	$0 \times \frac{5}{9}$	**b**	2
iii	$\frac{-2}{3} - \frac{1}{3}$	**c**	0
iv	The reciprocal of $\frac{1}{-2}$	**d**	1
v	$\frac{17}{7} + \frac{-3}{7}$	**e**	–2

Q18.

Compare and put the correct symbol [>, < and =]

i. $\frac{3}{-8}$ ☐ $\frac{3}{-8}$
ii. $\frac{3}{7}$ ☐ $\frac{-5}{6}$
iii. $\frac{5}{6}$ ☐ $\frac{8}{4}$
iv. $\frac{-9}{7}$ ☐ $\frac{4}{-7}$
v. $\frac{13}{8}$ ☐ $\frac{-3}{13}$

Q19.

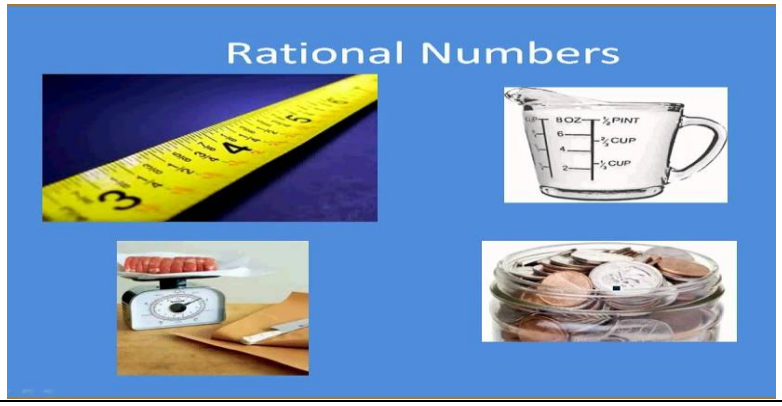
State whether the following statements given are True or False.

a. Every natural number is a rational number but every rational number need not be a natural number.
b. Zero is the smallest rational number.
c. The product of two rational numbers is a rational number.
d. The rational numbers $\frac{-12}{-5}$ and $\frac{-7}{-17}$ are on the opposite sides of zero on the number line.
e. 8 can be written as a rational number with 0 as denominator.

Q20.

Case Study:

Numbers are extremely useful in everyday life. That is probably one of the main reasons we all learn how to count and add and subtract from a very young age. Numbers help us to count and to measure out quantities of different items in various fields like retail, buying, catering, publishing etc. Every normal person uses numbers in his daily life. After knowing the importance of Rational numbers, try and improve your knowledge about them by answering the following questions on real life-based situations.



I From a rope 68 m long, pieces of equal size are cut. If length of one piece is $4\frac{1}{4}$ m, find the number of such pieces.

	A	1	B	12	C	16	D	10

II If 12 shirts of equal size can be prepared from 27m cloth, what is length of cloth required for each shirt?

	A	$2\frac{1}{4}$m	B	$4\frac{1}{4}$m	C	$\frac{1}{4}$m	D	$1\frac{1}{4}$m

III Rohit, Peter and Santosh walk around a circular park. They take $\frac{1}{3}$ hours, $\frac{1}{5}$ hours and $\frac{1}{2}$ hours to complete one round. What is the total time taken by them to complete a round in minutes?

	A	72 minutes	B	50 minutes	C	60 minutes	D	62 minutes

IV Jessy rides the bicycle $5\frac{1}{3}$ km each day. How far will he ride in $4\frac{1}{2}$ days?

	A	46 Km	**B**	24 Km	**C**	16 Km	**D**	16 Km

V A drum of kerosene oil is $10\frac{1}{4}$ full. When $5\frac{1}{2}$ litres of oil is drawn from it. How much kerosene oil is still left in the drum.

	A	$4\frac{1}{4}$ L	**B**	$5\frac{1}{4}$ L	**C**	$3\frac{1}{4}$ L	**D**	$4\frac{3}{4}$ L

Answers:									
1	16	**2**	$\frac{-3}{4}$	**3**	$\frac{12}{24}$	**4**	$\frac{6}{0}$	**5**	-5
6	$\frac{3}{4}$	**7**	-1	**8**	always negative	**9**	**p** is true and **q** is false.	**10**	$\frac{3}{-7}$
11	1	**12**	Infinite	**13**	Positive integer	**14**	$\frac{1}{2}$	**15**	$\frac{3}{-8} = \frac{-12}{32}$
16	a) -4 , b) 0 , c) left , d) $-\frac{2}{3}$ e) 0	**17**	**i→d, ii → c, iii →a , iv →e, v→b**	**18**	**i. = , ii > , iii < , iv < , v >**	**19**	a. True b. False c. True d. True e. False		**-**
20 I	16	**20 II**	$2\frac{1}{4}$m	**20 III**	62 minutes	**20 IV**	24km	**20 V**	$4\frac{3}{4}$ L