

# INDIAN SCHOOL AL WADI AL KABIR (2024-25)

Class VIII, Mathematics

## Worksheet- RATIONAL NUMBERS

### Multiple Choice Questions (1 Mark)

<b>Q.1</b>	The value of x in $\frac{x}{-30} = \frac{3}{5}$						
<b>A</b>	18	<b>B</b>	6	<b>C</b>	-18	<b>D</b>	-6
<b>Q.2</b>	A rational number which is not lying between $\frac{-1}{5}$ and $\frac{1}{6}$ is:						
<b>A</b>	$\frac{-4}{30}$	<b>B</b>	$\frac{1}{30}$	<b>C</b>	$\frac{-7}{30}$	<b>D</b>	$\frac{3}{30}$
<b>Q.3</b>	The standard form of $\frac{-225}{255}$ is _____						
<b>A</b>	$\frac{-5}{25}$	<b>B</b>	$\frac{-45}{51}$	<b>C</b>	$\frac{45}{51}$	<b>D</b>	$\frac{-15}{25}$
<b>Q.4</b>	The product of $\frac{-7}{9} \times \frac{3}{8} \times \frac{-4}{7}$ is:						
<b>A</b>	$\frac{1}{12}$	<b>B</b>	$\frac{1}{6}$	<b>C</b>	$\frac{-1}{7}$	<b>D</b>	$\frac{14}{15}$
<b>Q.5</b>	For rational numbers, multiplicative identity is:						
<b>A</b>	-1	<b>B</b>	0	<b>C</b>	1	<b>D</b>	2
<b>Q.6</b>	Negative of the number -7 is:						
<b>A</b>	0	<b>B</b>	1	<b>C</b>	-7	<b>D</b>	7
<b>Q.7</b>	Reciprocal of $\frac{4}{-5}$ is:						
<b>A</b>	$\frac{-4}{5}$	<b>B</b>	$\frac{5}{4}$	<b>C</b>	$\frac{4}{5}$	<b>D</b>	$\frac{-5}{4}$
<b>Q.8</b>	Multiplying $\frac{7}{5}$ by the reciprocal of $\frac{-7}{13}$ , we get						
<b>A</b>	$\frac{5}{13}$	<b>B</b>	$\frac{-5}{13}$	<b>C</b>	$\frac{-13}{5}$	<b>D</b>	$\frac{13}{5}$
<b>Q.9</b>	Which of the following numbers has no multiplicative inverse?						
<b>A</b>	0	<b>B</b>	-1	<b>C</b>	-2	<b>D</b>	-3
<b>Q.10</b>	Two rational numbers between -1 and 0 are:						

<b>A</b>	$\frac{1}{4}$ and $\frac{1}{2}$	<b>B</b>	$-\frac{1}{2}$ and $\frac{1}{4}$	<b>C</b>	$\frac{1}{3}$ and $\frac{2}{3}$	<b>D</b>	$-\frac{2}{3}$ and $-\frac{1}{3}$
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**Source-based question:**

The table shows the portion of some common materials that are recycled.

Material	Paper	Aluminum cans	Glass	Scrap
<b>Recycled</b>	$\frac{5}{11}$	$\frac{5}{8}$	$\frac{2}{5}$	$\frac{3}{4}$

Based on the above information answer the following questions.

**Q.11** Which material is recycled more?

<b>A</b>	Scrap	<b>B</b>	Aluminum cans	<b>C</b>	Glass	<b>D</b>	Paper
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**Q.12** What is the total quantity of all the materials that are recycled.

<b>A</b>	$\frac{15}{28}$	<b>B</b>	$\frac{981}{440}$	<b>C</b>	$\frac{10}{11}$	<b>D</b>	$\frac{981}{110}$
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**Q.13** Find the product of additive inverse and multiplicative inverse of  $\frac{5}{11}$ .

<b>A</b>	1	<b>B</b>	0	<b>C</b>	-1	<b>D</b>	$\frac{25}{121}$
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**Q.14** Name the property used in the given statement:  $\frac{5}{8} \times \frac{2}{5} = \frac{2}{5} \times \frac{5}{8}$

<b>A</b>	Associative Property	<b>B</b>	Commutative Property	<b>C</b>	Closure Property	<b>D</b>	Distributive Property
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**Q.15** How many rational numbers are there between  $\frac{5}{11}$  and  $\frac{5}{8}$  ?

<b>A</b>	3	<b>B</b>	2	<b>C</b>	0	<b>D</b>	infinite
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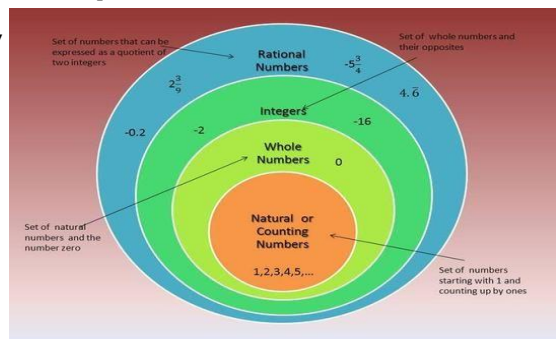
**Q.16. Case study:** As per the definition of a rational number,  $\frac{p}{q}$  is a rational number if

$p$  and  $q$  are integers and  $q \neq 0$ . For the rational numbers, answer the following:

i) What will be  $\frac{p}{q}$  if  $q=1$ .

ii)  $\frac{p}{q} = \frac{3}{8}$ , and  $\frac{p}{q} + 1$  is another rational number, then how many rational numbers exist between them.

iii) Find the value by using distributive property:  $\frac{5}{6} \times \frac{-3}{10} + \frac{-3}{10} \times \frac{2}{3}$



# ANSWERS

<b>Answers</b>	<b>1</b>	C	<b>2</b>	C	<b>3</b>	B	<b>4</b>	B
	<b>5</b>	C	<b>6</b>	D	<b>7</b>	D	<b>8</b>	C
	<b>9</b>	A	<b>10</b>	D	<b>11</b>	A	<b>12</b>	B
	<b>13</b>	C	<b>14</b>	B	<b>15</b>	D	<b>16</b>	i) Integer ii) infinite iii) $\frac{-9}{20}$

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