



INDIAN SCHOOL AL WADI AL KABIR

Class IX, Mathematics

Worksheet- THE WORLD OF NUMBERS-DTQ

Questions of 2 marks each

Q.1	Find 5 rational numbers between 2 and 3.
Q.2	A baker has $16\frac{1}{4}$ kg of flour. If each cake requires $3\frac{1}{4}$ kg of flour, how many cakes can the baker make?
Q.3	A student obtained an average score of $7.\overline{2}$ in a test. Express the score as a rational number in the form $\frac{p}{q}$.
Q.4	Check whether the following pairs of rational numbers are equal. (i) $\frac{4}{7}$ and $\frac{12}{20}$ (ii) $-\frac{5}{8}$ and $-\frac{15}{24}$
Q.5	Represent $\sqrt{10}$ on the number line.

Questions of 3 marks each

Q.6	Simplify the following: a) $\left(\frac{3}{4} + \frac{1}{8}\right) \times \frac{4}{5}$ b) $\left(\frac{7}{9} - \frac{1}{3}\right) \div \frac{2}{3}$ c) $\frac{5}{6} + \left(\frac{3}{4} \times \frac{2}{9}\right)$
Q.7	Express the following rational in decimal form and identify whether it is terminating or non-terminating decimals. (i) $\frac{18}{125}$ ii) $\frac{16}{45}$ iii) $\frac{31}{40}$
Q.8	Find the rational number x: (i) $\frac{x}{4} + \frac{x}{6} = \frac{25}{24}$ (ii) $\frac{2x}{3} + \frac{x}{6} = 5$
Q.9.	A ribbon of length $5\frac{1}{2}$ m is cut into pieces of length 0.25 m each. Express 0.25 as a rational number and determine how many pieces can be made.
Q10.	Write whether each of the following numbers is rational or irrational: (i) $\sqrt{8100} - \sqrt{256}$ (ii) $\sqrt{432}$ (iii) 6.23233233323333

Questions of 5 marks each

Q11.	Convert the following decimal numbers in the form of $\frac{p}{q}$: (i) 0.0120 (ii) $3.05\overline{25}$ (iii) $2.0\overline{5}$ (iv) $1.\overline{1625}$
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Answers

Answers	1	Any 5 numbers between $\frac{20}{10}$ and $\frac{30}{10}$	2	5 cakes	3.	$\frac{65}{9}$	4	(i) not equal (ii) equal
	6	a) $\frac{7}{10}$ b) $\frac{2}{3}$ c) 1	7	(i) 0.144, Terminating (ii) 0.3555... Non-terminating recurring (iii) 0.775 Terminating	8	(i) $x = \frac{5}{2}$ (ii) $x = 6$	9	22 pieces
	10	(i) 74, rational (ii) $12\sqrt{3}$, irrational (iii) irrational	11	(i) $\frac{3}{250}$, (ii) $\frac{1511}{495}$ (iii) $\frac{37}{18}$, (iv) $\frac{11624}{9999}$	14	Any 3 numbers between: (i) $\frac{20}{60}$ and $\frac{50}{60}$ (ii) $-\frac{30}{40}$ and $\frac{20}{40}$	15	$30=2 \times 3 \times 5$, Non-terminating recurring
	16	Third floor	17	2.7171010010001... 2.7172020020002... 2.7173030030003...				
