WORKSHEET-1

GRADE: 8

SUBJECT: Mathematics

Block 3- Properties of Rational Numbers

1. Choose if True or False.

i). $(-5)\times[(-7)\times(11)]=[(-5)\times(-7)]\times(11)$

A. False

B. True

ii). $12+[34+61] = [12+34] +61$

A. True

B. False

2. To make a chocolate pudding, Adam needs $\frac{1}{5}$ liters of chocolate syrup and $\frac{3}{4}$ liters of milk.

Adam decides to make 6 puddings.

a) Write the expression for the total amount of chocolate syrup and milk needed for 6 puddings.

b) Find the total amount of chocolate syrup and milk needed for 6 puddings.

3. Simplify the expressions using the BODMAS rule.

a) $\left\{\frac{3}{2} + \left(-\frac{5}{3} \times \frac{8}{9}\right) - 5\right\} + \frac{1}{2}$

b) $5 + \{4 \times (\frac{11}{13} + \frac{3}{39}) \div \frac{1}{13}\} - \frac{1}{3}$

4. A submarine is $\frac{95}{80}\,km$ below sea level. It goes up half of this distance and then, moves down $\frac{1}{3}\,km$. At what depth is the submarine now?

5. Rajni had a certain amount of money in her purse. She spent ▯ $10\frac{1}{4}$ in the school canteen, bought a gift worth ▯ $25\frac{3}{4}$ and gave ▯ $16\frac{1}{2}$ to her friend. How much she have to begin with?

6. Fill in the blanks:

a) Numbers of rational numbers between two rational numbers is ……….

b) The additive inverse of $-\frac{6}{11}$ is _____

c) The multiplicative inverse of $-\frac{2}{3}$ is ___

d) The reciprocal of $\frac{5}{3}$ is _____

7. A company makes 2 types of concrete mixtures, M10 and M15. The table shows the quantities of raw materials required for one portion of each mixture.

	Water	Aggregate	Portland cement
M10	$\frac{1}{10}kg$	$\frac{3}{10}\,kg$	$\frac{6}{10}kg$
M15	$\frac{1}{7}\,kg$	$\frac{2}{7}kg$	$\frac{4}{7}\,kg$

A bag contains one-third of the quantity of Portland cement required to make $4\frac{1}{2}$ portions of each type of mixture. How much cement is there in the bag?

Block-4 Solving Equations and Inequations

1. Solve the following equations using transposing method.

a) $x-1=2(x-4)$

b) $15-2y=39+10y$

c) $\frac{x}{3}+22 =-\frac{2x}{9}-68$

d) $\frac{5a+7}{2}=\frac{2+3a}{11}$

e) $15x - 200 = -225$

2. Solve the equations

a) $\frac{8w+6}{6} = -7$

b) $\frac{2-z}{5} = 8$

c) $\left|\frac{x-8}{5}\right| = 6$

d) $|y - 15| + 15 = -3$

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