KENDRIYA VIDYALAYA, IIT CAMPUS, CHENNAI – 36

HOLIDAY HOMEWORK – VIII MATHEMATICS

WORK SHEET 1 (LINEAR EQUATIONS IN ONE VARIABLE)

Choose correct option in questions 1 to 5.

1. Solve: $6 = z + 2$

   a. 4 b. 8

   c. -8 d. none of these

2. Solve: $8y = 32$

   a. 3 b. 4

   c. 24 d. 40

3. Solve: $4z + 3 = 6 + 2z$

   a. ½ b. 1

   c. $\frac{3}{2}$ d. 0

4. Solve: $3m = 5m - \frac{8}{5}$

   a. 0.2 b. 0.25

   c. 0.5 d. $\frac{4}{5}$

5. Solve: $\frac{z}{z+15} = \frac{4}{9}$

   a. 12 b. 13

   c. 14 d. none of these

Fill in the blanks:

6. The equations are linear, i.e., the highest power of the variable appearing in the equation is _____.

7. The sum of three consecutive multiples of 11 is 363. Find these multiples.

8. Three consecutive integers add up to 51. What are these integers?

9. Sum of the digits of a two-digit number is 9. When we interchange the digits, it is found that the resulting new number is greater than the original number by 27. What is the two-digit number?

KENDRIYA VIDYALAYA, IIT CAMPUS, CHENNAI – 36
HOLIDAY HOMEWORK – VIII MATHEMATICS
WORK SHEET 2 (LINEAR EQUATIONS IN ONE VARIABLE)

Choose correct option in questions 1 to 5.

1. Solve: $y + 3 = 10$
   a. 7 b. 13
   c. -7 d. none of these

2. Solve: $7x = 21$
   a. 2 b. 3
   c. 14 d. 28

3. Solve: $5x + 9 = 5 + 3x$
   a. 1 b. -1
   c. -2 d. 0

4. Solve: $2y + \frac{5}{3} = \frac{26}{3} - y$
   a. 2 b. 3
   c. 4 d. $\frac{7}{3}$

5. Solve: $\frac{8x-3}{3x} = 2$
   a. 3/2 b. ½
   c. ¼ d. none of these

Fill in the blanks:

6. A linear equation may have for its ____ any rational number.

7. Bansi has 3 times as many two-rupee coins as he has five-rupee coins. If he has in all a sum of Rs 77, how many coins of each denomination does he have?

8. Two numbers are in the ratio 5:3. If they differ by 18, what are the numbers?

9. A positive number is 5 times another number. If 21 is added to both the numbers, then one of the new numbers becomes twice the other new number. What are the numbers?

KENDRIYA VIDYALAYA, IIT CAMPUS, CHENNAI – 36

HOLIDAY HOMEWORK – VIII MATHEMATICS

WORK SHEET 3 (RATIONAL NUMBERS)

Choose correct option in questions 1 to 5.

1. Write the rational numbers that are equal to their reciprocals.
   a. 1, -1 b. 0
   c. 2, -2 d. none of these

2. $0 \times ½ =$ ___
   a. ½ b. 0
   c. 1 d. 2

3. Write the additive inverse of $\frac{12}{11}$.
   a. $\frac{12}{11}$ b. 1
   c. $-\frac{12}{11}$ d. 0

4. Find the multiplicative inverse of 25.
   a. -25 b. 25
   c. 24 d. $\frac{1}{25}$

5. Name the property under multiplication used in $\left(\frac{-1}{5}\times\frac{1}{2}\right)\times\frac{1}{3}=\frac{-1}{5}\times\left(\frac{1}{2}\times\frac{1}{3}\right)$.
   a. Associative property b. Multiplicative identity
   c. Commutative property d. none of these

Fill in the blanks:

6. A number which can be written in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$ is called a _____.
7. In general, $a \times b =$ _____ for any two rational numbers a and b.
8. _____ is called the identity for the addition of rational numbers.
9. The numbers _____ and _____ are their own reciprocals

10. Write any 3 rational numbers between –2 and 0.

11. Write five rational numbers greater than –2.

KENDRIYA VIDYALAYA, IIT CAMPUS, CHENNAI – 36
HOLIDAY HOMEWORK – VIII MATHEMATICS
WORK SHEET 3 (RATIONAL NUMBERS)

1. Write the multiplication tables from 6^{th} to 20^{th} Table 3 times each.

****