PSBB LEARNING LEADERSHIP ACADEMY, BANGALORE
BANGALORE

CLASS 8 **LINEAR EQUATIONS IN ONE VARIABLE** **WA2 /25/06/2021**

OBJECTIVE

1) Which of the following is the definition of Linear equation with one variable?
   a] A linear equation is an algebraic equation of the form ax+b =0
   b] The standard form for linear equations in 2 variables is ax+by+c =0
   c] None of the above
   d] All the above

2) If $\frac{x}{3} + 1 = \frac{7}{15}$ then which of the following is correct?
   $(a)\ \frac{x}{3} = \frac{7}{15} - 1$ $(b)\ \frac{x}{3} = -\frac{7}{15} + 1$ $(c)\ \frac{x}{3} = \frac{-7}{15} - 1$ $(d) none\ of\ these$

3) If 7x+15 = 50, then which of the following is the root of the equation?
   (a) -5 (b) $\frac{65}{7}$ (c) 5 (d) $\frac{1}{5}$

4) If the sum of two consecutive numbers is 71 and one number is x, then the other number is-
   a) x + (x+1) = 71 (b) x + (x+2) = 71 (c) x + x = 71 (d) none of these

5) Number Ninja said "Two years ago my age was x years, then what was my age 5 years ago"?
   a) x + 7 b) x-2-5 c) x-5 d)x-3

6) Linear equation in one variable has 2 solutions. [TRUE/FALSE]

7) $x^2 + 1 = 2x$ is a linear equation . [TRUE/FALSE] Justify your answer.

8) If p is an even number, then the next number is ----------

9) When a number is divided by 8 you get -3 , then the number is ----------

10) $(x-a) \times (x-b) \times (x-c) \ldots\ldots\ldots\ldots\ldots \times (x-z) = ----------$

Do as directed.

1) Divide 40 into two parts such that ¼ th of one part is 3/8 th of the other.
2) The digits of a 2-digit number differ by 5. If the digits are interchanged and the resulting number is added to the original number, we get 99. Find the original number.
3) The sum of two twin prime numbers is 60. Find the prime nos.
4) Ms. Geomica as twice the Mr. Algebro. If six years is subtracted from Mr. Algebro's age and 4 years added to Ms Geomica's age, then Ms Geomica will be four times Mr. Algebro's age. How old were they two years ago?
5) Omega is twice old as Pi . Five years ago Omega was 3 times as old as Pi. Find their present ages.
6) Sum of two numbers is 2490. If 6.5% of one is equal to 8.5% of the other number, find the numbers.
7) **Solve**

$a]\ \frac{(x+3)}{(6)} + 1 = \frac{(6x-1)}{3}$

$b]\ 15(x - y) - 3(x - 9) + 5(x + 6) = 0$

$c]\ \frac{2}{x-3} + \frac{1}{x-1} = \frac{5}{x-1} - \frac{2}{x-2}$

$d]\ \frac{3-7x}{15+2x} = 0$

$e]\ \frac{[17(2 - y) - 5(y + 12)]}{1 - 7y} = 8$