Chapter 2 Linear Equations in One Variable

Question 1:

Solve the following linear equations

$x-11=7$

$z+8=9$

$11x=121$

Question 2:

Solve:

$y/11= 11$

Question 3:

Solve

$23x/2= 46$

Question 4:

Solve:

$1.2= z/1.4$

Question 5:

Solve:

$7x-12=16$

Question 6

Solve:

$7z-5=16$

Question 7:

Solve:

$10+6p=22$

Question 8:

Solve

$11-5x+3x+4x=18$

Question 9

Solve

$(x-2)+(x-3) +(x-9)= 0$

Question 10

Solve

$(2x-2)+(3x-3) +(9x-9)= 1$

Question 11

Solve each of the following equations

(a) x + 2 = -11
(b) 2x - 1/6 = 3
(c) 7x - 7 = 21
(d) -7x = 84
(e) 18 +7x = -3
(f) 3(x - 4) = 21
(g) 3x/2 - 2x/3 = 8
(h) 3x - 9 = 4x - 3
(i) 3(2x - 3) = 4(2x + 4)

Question 12

Solve each of the following equations and check your solution by substituting in the equation.

(a) x/2 - 10 = 1/2
(b) x/3 - x/2 = 6
(c) 6x - 9 - 2(1 + x) = x - 9
(d) 2(x +2) + 5(x + 5) = 4(x - 8) + 2(x - 2)
(e) (3 + y)/(y + 7) = 3/5
(f) (3x - 2)/(2x - 3) = - 1/2
(g) (x - 7)/3 = (x - 1)/5

Question 13
A positive number is 5 times another number. If 21 is added to both the numbers, then one of the new numbers become twice of another new numbers. Find the original numbers.

Question 14:
The sum of three consecutive multiples of 8 is 888. Find the multiple.

Question 15
Five years ago, Anu was thrice as old as Sonu. Ten years later, Anu will be twice as old as Sonu.How old are Anu and Sonu?

Question 16

Three consecutive integers are as such when they are taken in increasing order and multiplied by 2, 3, and 4 respectively, they add up to 56. Find these numbers.

Question 17

The perimeter of a rectangular swimming pool is 154 meters. Its length is 2m more than twice its breadth. What are the length and breadth of the pool?

Question 18

Sum of two numbers is 95. If one exceeds the other by 15 find the numbers.

Question 19

Two numbers are in the ration 4:3. If they differ by 18, find these numbers

Question 20

Three consecutive integers add up to 57. What are these integers?

Question 21

There is a narrow rectangular plot. The length and breadth of the plot are in the ratio of 11:4. At the rate of Rs. 100 per meter it will cost village panchayat Rs.75000 to fence the plot. What are the dimensions of the plot?

Question 22

Convert the following statements into equations.

(a) 3 added to a number is 11

(b) 2 subtracted from a number is equal to 15.

(c) 3 times a number decreased by 2 is 4.

(d) 2 times the sum of the number x and 7 is 13.

Question 23

Amina thinks of a number and subtracts 5/2 from it. She multiplies the result by 8. The final result is 3 times her original number. Find the number

Question 24

A number is 12 more than the other. Find the numbers if their sum is 48.

Question 25

The sum of three consecutive odd numbers is 51. Find the numbers.

Question 26

Jane is 6 years older than her younger sister. After 10 years, the sum of their ages will be 50 years. Find their present ages.

Question 27

The denominator of a fraction is greater than the numerator by 8. If the numerator is increased by 17 and denominator is decreased by 1, the number obtained is 3/2, find the fraction.

Question 28

A sum of Rs2700 is to be given in the form of 63 prizes. If the prize is of either Rs100 or Rs25, find the number of prizes of each type.

Question 29

In an isosceles triangle, the base angles are equal and the vertex angle is 80°. Find the measure of the base angles.

Question 30

True and False statement

a) The three consecutive positive integer can be written as x, x+1, x+2 where x is any positive intege

b) The cost of a pencil is 5 Rs more than the cost of an eraser. If the cost of 8 pencils and 10 erasers is Rs 130, then the cost of pencil is 10 Rs

c) if 2(x-13) = 14, then x=20

d) The shifting of one number from one side of linear equation to another side is called transposition

e) The three consecutive multiple of 7 would 7x,7x+7, 7x+21

Question 31

Fifteen years from now Ravi's age will be 4 times his current age. What is his current age?

a) 4 year

b) 5 years

c) 6 years

d) 3 years

Question 32

Ramesh is a cashier in a Canara bank. he has notes of denominations of Rs. 100, 50 and 10 respectively. The ratio of number of these notes is 2:3:5 respectively. The total cash with Ramesh is 4,00,000. How many notes of each denomination does he have?

a) 2000 100's notes,3000 50's notes and 5000 50's notes

b) 4000 100's notes,6000 50's notes and 10000 50's notes

c) 1000 100's notes,1500 50's notes and 2500 50's notes

d) None of these