

# LATEX ASSIGNMENT

ANAND

21-08-2023

## EXERCISE 10.3.4

1. Solve the following pair of linear equations by the elimination method and the substitution method:
  - (i)  $x + y = 5$  and  $2x - 3y = 4$
  - (ii)  $3x + 4y = 10$  and  $2x - 2y = 2$
  - (iii)  $3x - 5y - 4 = 0$  and  $9x = 2y + 7$
  - (iv)  $\frac{x}{2} + \frac{2y}{3} = -1$  and  $x - \frac{y}{3} = 0$
2. Form the pair of linear equations in the following problem, and find their solutions(if they exist) by the elimination method:
  - (i) If we add 1 to the numerator and subtract 1 from the denominator, a fraction reduces to 1. It becomes  $\frac{1}{2}$  if we only add 1 to the denominator. What is the fraction?
  - (ii) Five years ago, Nuri was thrice as old as sonu. Ten years later, Nuri will be twice as old as sonu. How old are Nuri and sonu?
  - (iii) The Sum of the digits of a two-digit number is 9. Also, nine times this number is twice the number obtained by reversing the order of the digits. Find the number.
  - (iv) Meena Went to a bank to withdraw ₹ 2000. She asked the cashier to give her ₹ 50 and ₹ 100 notes only. Meena got 25 notes in all. Find how many notes ₹ 50 and ₹ 100 she received.
  - (v) A lending library has a fixed charge for the first three days and an additional charge for each day thereafter. Sarita paid ₹ 27 for seven days, While susy paid ₹ 21 for the book she paid for five days. Find the fixed charge and the charge for each extra day.