



LINEAR EQUATION IN TWO VARIABLE

STD: IX (CASE STUDY)

On his birthday, Manoj planned that this time he celebrates his birthday in a small orphanage centre. He bought apples to give to children and adults working there. Manoj donated 2 apples to each children and 3 apples to each adult working there along with Birthday cake. He distributed 60 total apples.



(a) How to represent the above situation in linear equations in two variables by taking the number of children as 'x' and the number of adults as 'y'?

- (i) $2x + y = 60$
- (ii) $3x + 2y = 60$
- (iii) $2x + 3y = 60$
- (iv) $3x + y = 60$

(b) If the number of children is 15, then find the number of adults?

- (i) 10
- (ii) 25
- (iii) 15
- (iv) 20

(c) If the number of adults is 12, then find the number of children?

- (i) 12
- (ii) 14
- (iii) 15
- (iv) 18

(d) Find the value of b , if $x = 5$, $y = 0$ is a solution of the equation $3x + 5y = b$.

- (i) 12
- (ii) 14
- (iii) 15
- (iv) 18

(e) Which is the standard form of linear equations in two variables: $y - x = 5$?

- (i) $1.y - 1.x - 5 = 0$
- (ii) $1.x - 1.y + 5 = 0$
- (iii) $1.x + 0.y + 5 = 0$
- (iv) $1.x - 1.y - 5 = 0$