



MATHS

NCERT - NCERT MATHEMATICS(TAMIL ENGLISH)

LINEAR EQUATIONS IN TWO VARIABLES

Examples

1. Sachin and Sehwag scored 137 runs together. Express the information in the form of an equation.



[Watch Video Solution](#)

2. Hema's age is 4 times the age of Mary. Write a linear equation in two variables to represent this information.



[Watch Video Solution](#)

3. A number is 27 more than the number obtained by reversing its digits. If its unit's and ten's digits are x and y respectively, write the linear equation representing the above statement.



[Watch Video Solution](#)

4. Express each of the following equations in the form of $ax + by + c = 0$ and write the values of a , b and c .

(i) $3x + 4y = 5$ (ii) $x - 5 = \sqrt{3}y$

(iii) $3x = y$ (iv) $\frac{x}{2} + \frac{y}{2} = \frac{1}{6}$

(v) $3x - 7 = 0$



[Watch Video Solution](#)

5. Write each of the following in the form of $ax + by + c = 0$ and find the values of a , b and c

(i) $x = -5$

(ii) $y = 2$

(iii) $2x = 3$

(iv) $5y = -3$



[Watch Video Solution](#)

6. Find four different solutions of $4x + y = 9$.

(Complete the table wherever necessary)



[Watch Video Solution](#)

7. Check which of the following are solutions of an equation $x + 2y = 4$? (Complete the table wherever necessary)

(i) (0, 2) (ii) (2, 0) (iii) (4, 0) (iv) $(\sqrt{2}, -\sqrt{2})$

(v) (1, 1) (vi) (-2, 3)



[Watch Video Solution](#)

8. If $x = 3$, $y = 2$ is a solution of the equation $5x - 7y = k$, find the value of k and write the resultant equation.



[Watch Video Solution](#)

9. If $x = 2k + 1$ and $y = k$ is a solutions of the equation $5x + 3y - 7 = 0$, find the value of k .



[Watch Video Solution](#)

10. Draw the graph of the equation $y - 2x = 4$ and then answer the following.

(i) Does the point $(2, 8)$ lie on the line? Is $(2, 8)$ a solution of the equation? Check by substituting $(2, 8)$ in the equation.

(ii) Does the point $(4, 2)$ lie on the line? Is $(4, 2)$ a solution of the equation? Check algebraically also.

(iii) From the graph find three more solutions of the equation and also three more which are not solutions.



Watch Video Solution

11. Draw the graph of the equation $x - 2y = 3$.

From the graph find the coordinate points 1) x

$= -5$ 2) $y = 0$



Watch Video Solution

12. 25% of the students in a school are girls and others are boys. Form an equation and draw a graph for this. By observing the graph, answer the following :

(i) Find the number of boys, if the number of girls is 25.

(ii) Find the number of girls, if the number of boys is 45.

(iii) Take three different values for number of boys and find the number of girls. Similarly take three different values for number of girls and find the number of boys?



Watch Video Solution

13. For each graph given below, four linear equations are given. Out of these find the equation that represents the given graph.

(i) Equations are

(A) $y = x$

(B) $x + y = 0$

(C) $y = 2x$

(D) $2 + 3y = 7x$

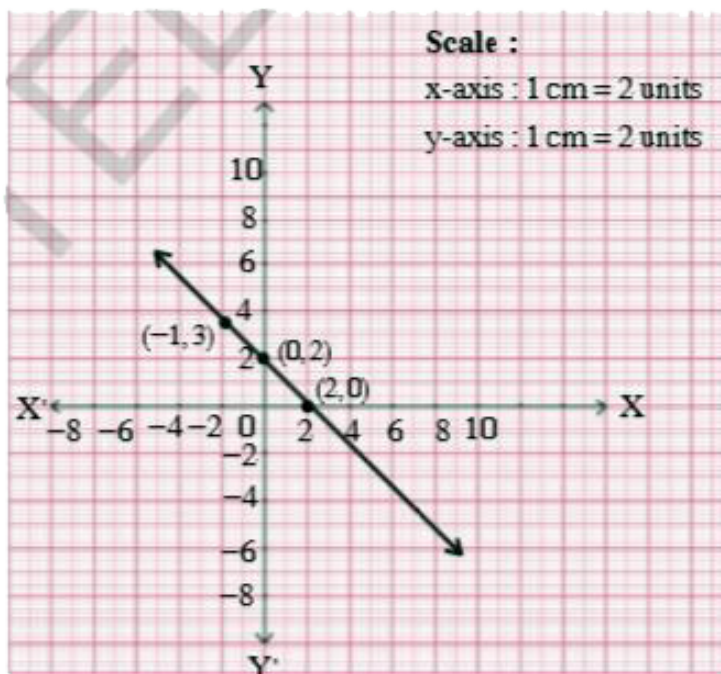
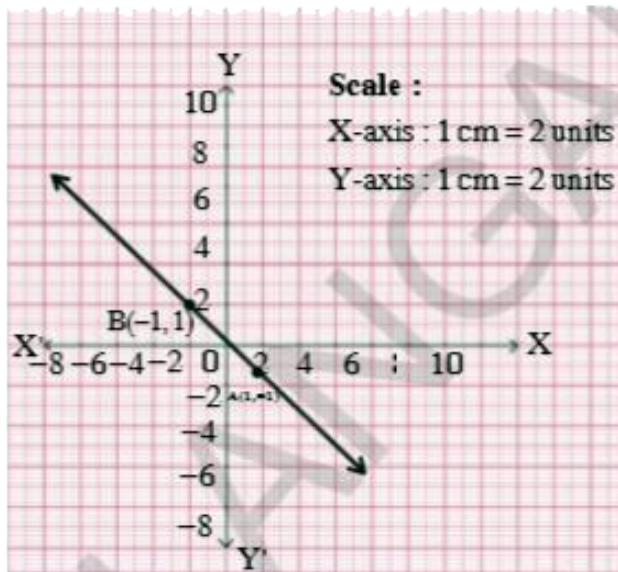
(ii) Equations are

(A) $y = x + 2$

(B) $y = x - 2$

(C) $y = -x + 2$

(D) $x + 2y = 6$





[Watch Video Solution](#)

14. Sachin and Sehwag scored 137 runs together. Express the information in the form of an equation.



[Watch Video Solution](#)

15. Hema's age is 4 times the age of Mary. Write a linear equation in two variables to represent this information.





[Watch Video Solution](#)

16. A number is 27 more than the number obtained by reversing its digits. If its unit's and ten's digits are x and y respectively, write the linear equation representing the above statement.



[Watch Video Solution](#)

17. Express each of the following equations in the form of $ax + by + c = 0$ and write the values

of a, b and c.

(i) $3x + 4y = 5$ (ii) $x - 5 = \sqrt{3}y$

(iii) $3x = y$ (iv) $\frac{x}{2} + \frac{y}{2} = \frac{1}{6}$

(v) $3x - 7 = 0$



[Watch Video Solution](#)

18. Write each of the following in the form of $ax + by + c = 0$ and find the values of a, b and c

(i) $x = -5$

(ii) $y = 2$

(iii) $2x = 3$

(iv) $5y = -3$



[Watch Video Solution](#)

19. Find four different solutions of $4x + y = 9$.

(Complete the table wherever necessary)



[Watch Video Solution](#)

20. Check which of the following are solutions of an equation $x + 2y = 4$? (Complete the table

wherever necessary)

(i) (0, 2) (ii) (2, 0) (iii) (4, 0) (iv) $(\sqrt{2}, -\sqrt{2})$

(v) (1, 1) (vi) (-2, 3)



[Watch Video Solution](#)

21. If $x = 3$, $y = 2$ is a solution of the equation $5x - 7y = k$, find the value of k and write the resultant equation.



[Watch Video Solution](#)

22. If $x = 2k + 1$ and $y = k$ is a solutions of the equation $5x + 3y - 7 = 0$, find the value of k .



Watch Video Solution

23. Draw the graph of the equation $y - 2x = 4$ and then answer the following.

(i) Does the point $(2, 8)$ lie on the line? Is $(2, 8)$ a solution of the equation? Check by substituting $(2, 8)$ in the equation.

(ii) Does the point $(4, 2)$ lie on the line? Is $(4, 2)$

a solution of the equation? Check algebraically also.

(iii) From the graph find three more solutions of the equation and also three more which are not solutions.



[Watch Video Solution](#)

24. Draw the graph of the equation $x - 2y = 3$.

From the graph find (i) The solution (x, y)

where $x = -5$

(ii) The solution (x, y) where $y = 0$

(iii) The solution (x, y) where $x = 0$



Watch Video Solution

25. 25% of the students in a school are girls and others are boys. Form an equation and draw a graph for this. By observing the graph, answer the following :

(i) Find the number of boys, if the number of girls is 25.

(ii) Find the number of girls, if the number of

boys is 45.

(iii) Take three different values for number of boys and find the number of girls. Similarly take three different values for number of girls and find the number of boys?



[Watch Video Solution](#)

26. For each graph given below, four linear equations are given. Out of these find the equation that represents the given graph.

(i) Equations are

(A) $y = x$

(B) $x + y = 0$

(C) $y = 2x$

(D) $2 + 3y = 7x$

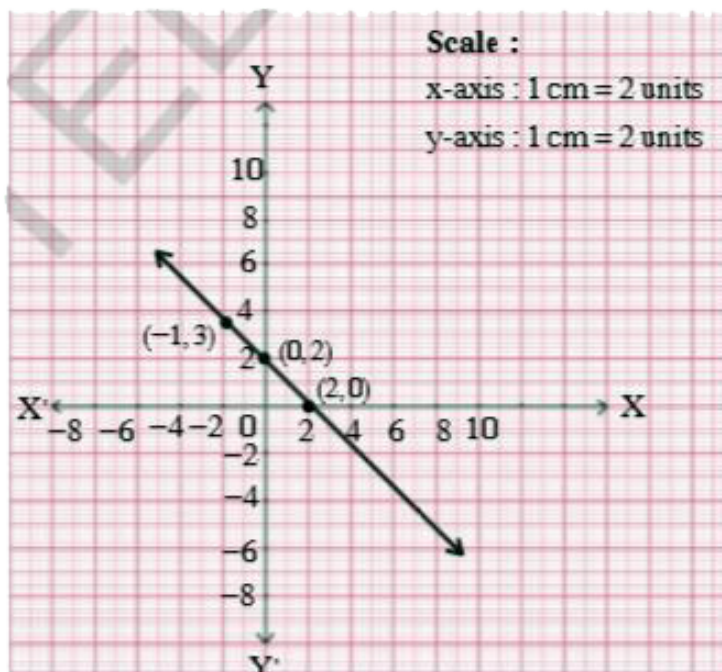
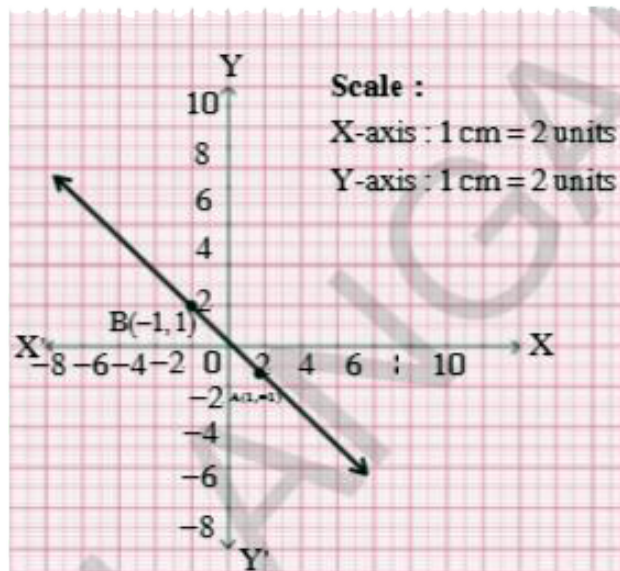
(ii) Equations are

(A) $y = x + 2$

(B) $y = x - 2$

(C) $y = -x + 2$

(D) $x + 2y = 6$





Watch Video Solution

Try This

1. Express the following linear equations in the form of $ax + by + c = 0$ and indicate the values of a, b, c in each case?

(i) $3x + 2y = 9$ (ii) $-2x + 3y = 6$ (iii) $9x - 5y = 10$

(iv) $\frac{x}{2} - \frac{y}{2} - 5 = 0$ (v) $2x = y$



Watch Video Solution

2. Take a graph paper, plot the point $(2, 4)$, and draw a line passing through it. Now answer the following questions.

How many such lines can be drawn?



[Watch Video Solution](#)

3. Take a graph paper, plot the point $(2, 4)$, and draw a line passing through it. Now answer the following questions.

How many such lines can be drawn?



[Watch Video Solution](#)

4. Take a graph paper, plot the point $(2, 4)$, and draw a line passing through it. Now answer the following questions.

How many such lines can be drawn?



[Watch Video Solution](#)

5. Express the following linear equations in the form of $ax + by + c = 0$ and indicate the values of a , b , c in each case?

(i) $3x + 2y = 9$ (ii) $-2x + 3y = 6$ (iii) $9x - 5y = 10$

(iv) $\frac{x}{2} - \frac{y}{2} - 5 = 0$ (v) $2x = y$



[Watch Video Solution](#)

6. find the solutions for the pairs of equation.

and identify the solution $5x+3y=15$ and

$5x+2y=10$



[Watch Video Solution](#)

7. Take a graph paper, plot the point $(2, 4)$, and draw a line passing through it. Now answer the following questions.

Can you draw another line that passes through the point $(2, 4)$.



[Watch Video Solution](#)

8. Take a graph paper, plot the point $(2, 4)$, and draw a line passing through it. Now answer the

following questions.

How many such lines can be drawn?



Watch Video Solution

9. Take a graph paper, plot the point $(2, 4)$, and draw a line passing through it. Now answer the following questions.

How many linear equations in two variables exist for which $(2, 4)$ is a solution?



Watch Video Solution

Do This

1. (i) Draw the graph of following equations.

(a) $x = 2$ (b) $x = -2$ (c) $x = 4$ (d) $x = -4$

(ii) Are the graphs of all these equations parallel to Y-axis?

(iii) Find the distance between the graph and the Y-axis in each case



[Watch Video Solution](#)

2. (i) Draw the graph of following equations.

(a) $x = 2$ (b) $x = -2$ (c) $x = 4$ (d) $x = -4$

(ii) Are the graphs of all these equations parallel to Y-axis?

(iii) Find the distance between the graph and the Y-axis in each case



Watch Video Solution

3. (i) Draw the graph of the following equations

(a) $y = 2$ (b) $y = -2$ (c) $y = 3$ (d) $y = -3$

(ii) Are all these parallel to the X-axis?

(iii) Find the distance between the graph of the line and the X-axis in each case



[Watch Video Solution](#)

Exercise 8 1

1. Express the following linear equation in the form of $ax+by+c=0$ and indicate the values of a , b and c in each case.

(i) $8x + 5y - 3 = 0$ (ii) $28x - 35y = -7$ (iii) $93x = 12 -$

$15y$

(iv) $2x = -5y$ (v) $\frac{x}{3} + \frac{y}{4} = 7$ (vi) $y = \frac{-3}{2}x$

(vii) $3x + 5y = 12$



Watch Video Solution

2. Write each of the following in the form of ax

$+ by + c = 0$ and find the values of a , b and c

(i) $2x = 5$ (ii) $y - 2 = 0$ (iii) $\frac{y}{7} = 3$ (iv) $x = \frac{-14}{13}$



Watch Video Solution

3. Express the following statements as a linear equation in two variables.

The sum of two numbers is 34.



[Watch Video Solution](#)

4. Express the following statements as a linear equation in two variables.

The cost of a ball pen is 5 less than half the cost of a fountain pen.



[Watch Video Solution](#)

5. Express the following statements as a linear equation in two variables.

Bhargavi got 10 more marks than double the marks of Sindhu.



[Watch Video Solution](#)

6. Express the following statements as a linear equation in two variables.

The sum of two numbers is 34.



[Watch Video Solution](#)

7. Express the following statements as a linear equation in two variables.

Yamini and Fatima of class IX together contributed ₹ 200/- towards the Prime Minister's Relief Fund.



[Watch Video Solution](#)

8. Express the following statements as a linear equation in two variables.

The sum of a two digit number and the

number obtained by reversing the order of its digits is 121. If the digits in unit's and ten's place are 'x' and 'y' respectively.



[Watch Video Solution](#)

9. Express the following linear equation in the form of $ax+by+c=0$ and indicate the values of a, b and c in each case.

(i) $8x + 5y - 3 = 0$ (ii) $28x - 35y = - 7$ (iii) $93x = 12 - 15y$

$$(iv) 2x = -5y \quad (v) \frac{x}{3} + \frac{y}{4} = 7 \quad (vi) y = \frac{-3}{2}x$$

$$(vii) 3x + 5y = 12$$



[Watch Video Solution](#)

10. Write each of the following in the form of $ax + by + c = 0$ and find the values of a , b and c

$$(i) 2x = 5 \quad (ii) y - 2 = 0 \quad (iii) \frac{y}{7} = 3 \quad (iv) x = \frac{-14}{13}$$



[Watch Video Solution](#)

11. Express the following statements as a linear equation in two variables.

The sum of two numbers is 34.



[Watch Video Solution](#)

12. Express the following statements as a linear equation in two variables.

The cost of a ball pen is 5 less than half the cost of a fountain pen.



[Watch Video Solution](#)

13. Express the following statements as a linear equation in two variables.

Bhargavi got 10 more marks than double the marks of Sindhu.



Watch Video Solution

14. Express the following statements as a linear equation in two variables.

The cost of a pencil is 2 and a ball point pen is

15. Sheela pays 100 for the pencils and pens she purchased.



[Watch Video Solution](#)

15. Express the following statements as a linear equation in two variables.

Yamini and Fatima of class IX together contributed ₹ 200/- towards the Prime Minister's Relief Fund.



[Watch Video Solution](#)

16. Express the following statements as a linear equation in two variables.

The sum of a two digit number and the number obtained by reversing the order of its digits is 121. If the digits in unit's and ten's place are 'x' and 'y' respectively.



Watch Video Solution

Exercise 8 2

1. Find three different solutions of the each of the following equations.

(i) $3x + 4y = 7$ (ii) $y = 6x$ (iii) $2x - y = 7$

(iv) $13x - 12y = 25$ (v) $10x + 11y = 21$ (vi) $x + y = 0$



[Watch Video Solution](#)

2. If $(0, a)$ and $(b, 0)$ are the solutions of the following linear equations. Find 'a' and 'b'.

(i) $8x - y = 34$ (ii) $3x = 7y - 21$ (iii) $5x - 2y + 3 = 0$



[Watch Video Solution](#)

3. Check which of the following are solutions of an equation $x + 2y = 4$? (Complete the table wherever necessary)

(i) (0, 2) (ii) (2, 0) (iii) (4, 0) (iv) $(\sqrt{2}, -\sqrt{2})$

(v) (1, 1) (vi) (-2, 3)



Watch Video Solution

4. Find the value of k , if $x = 2$, $y = 1$ is a solution of the equation $2x + 3y = k$. Find two more solutions of the resultant equation.



[Watch Video Solution](#)

5. If $x = 2 - \alpha$ and $y = 2 + \alpha$ is a solution of the equation $3x - 2y + 6 = 0$ find the value of ' α '.
Find three more solutions of the resultant equation.



[Watch Video Solution](#)

6. If $x = 1, y = 1$ is a solution of the equation $3x + ay = 6$, find the value of ' a '.



[Watch Video Solution](#)

7. Write five different linear equations in two variables and find three solutions for each of them?



[Watch Video Solution](#)

8. Find three different solutions of the each of the following equations.

(i) $3x + 4y = 7$ (ii) $y = 6x$ (iii) $2x - y = 7$

(iv) $13x - 12y = 25$ (v) $10x + 11y = 21$ (vi) $x + y = 0$



[Watch Video Solution](#)

9. If $(0, a)$ and $(b, 0)$ are the solutions of the following linear equations. Find 'a' and 'b'.

(i) $8x - y = 34$ (ii) $3x = 7y - 21$ (iii) $5x - 2y + 3 = 0$



[Watch Video Solution](#)

10. Check which of the following is solution of the equation $2x - 5y = 10$

(i) $(0, 2)$ (ii) $(0, -2)$ (iii) $(5, 0)$ (iv) $(2\sqrt{3}, -\sqrt{3})$

(v) $(\frac{1}{2}, 2)$



[Watch Video Solution](#)

11. If $x = 1, y = 1$ is a solution of the equation $3x + ay = 6$, find the value of 'a'.



[Watch Video Solution](#)

Exercise 8 3

1. Draw the graph of each of the following linear equations.

(i) $2y = -x + 1$ (ii) $-x + y = 6$ (iii) $3x + 5y = 15$ (iv)

$$\frac{x}{2} - \frac{y}{3} = 3$$



Watch Video Solution

2. Draw the graph of each of the following linear equations and answer the following question.

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

(i) Are all these equations of the form $y = mx$, where m is a real number?

(ii) Are all these graphs passing through the origin?

(iii) What can you conclude about these graphs?



Watch Video Solution

3. Draw the graph of the equation $2x + 3y = 11$.

Find the value of y when $x = 1$ from the graph.



Watch Video Solution

4. Draw the graph of the equation $y - x = 2$.

Find from the graph

(i) the value of y when $x = 4$

(ii) the value of x when $y = -3$



[Watch Video Solution](#)

5. Draw the graph of the equation $2x + 3y = 12$.

Find the solutions from the graph

(i) Whose y -coordinate is 3

(ii) Whose x -coordinate is -3



[Watch Video Solution](#)

6. Draw the graph of each of the equations given below and also find the coordinates of the points where the graph cuts the coordinate axes

(i) $6x - 3y = 12$ (ii) $-x + 4y = 8$ (iii) $3x + 2y + 6 = 0$



[Watch Video Solution](#)

7. Rajiya and Preethi two students of Class IX together collected 1000 for the Prime Minister Relief Fund for victims of natural calamities. Write a linear equation and draw a graph to depict the statement.



[Watch Video Solution](#)

8. Gopaiah sowed wheat and paddy in two fields of total area 5000 square meters. Write

a linear equation and draw a graph to represent the same?



[Watch Video Solution](#)

9. The force applied on a body of mass 6 kg. is directly proportional to the acceleration produced in the body. Write an equation to express this observation and draw the graph of the equation.



[Watch Video Solution](#)

10. A stone is falling from a mountain. The velocity of the stone is given by $V = 9.8t$. Draw its graph and find the velocity of the stone '4' seconds after start.



[Watch Video Solution](#)

11. Draw the graph of each of the following linear equations.

(i) $2y = -x + 1$ (ii) $-x + y = 6$ (iii) $3x + 5y = 15$ (iv)

$$\frac{x}{2} - \frac{y}{3} = 3$$



[Watch Video Solution](#)

12. Draw the graph of each of the following linear equations and answer the following question.

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

(i) Are all these equations of the form $y = mx$, where m is a real number?

(ii) Are all these graphs passing through the origin?

(iii) What can you conclude about these graphs?





[Watch Video Solution](#)

13. Draw the graph of the equation $2x + 3y = 11$.

Find the value of y when $x = 1$ from the graph.



[Watch Video Solution](#)

14. Draw the graph of the equation $y - x = 2$.

Find from the graph

(i) the value of y when $x = 4$

(ii) the value of x when $y = -3$



[Watch Video Solution](#)

15. Draw the graph of the equation $2x+3y=12$.

Find the solutions from the graph

(i) Whose y-coordinate is 3

(ii) Whose x-coordinate is -3



Watch Video Solution

16. Draw the graph of each of the equations given below and also find the coordinates of the points where the graph cuts the

coordinate axes

(i) $6x - 3y = 12$ (ii) $-x + 4y = 8$ (iii) $3x + 2y + 6 = 0$



[Watch Video Solution](#)

17. Rajiya and Preethi two students of Class IX together collected 1000 for the Prime Minister Relief Fund for victims of natural calamities. Write a linear equation and draw a graph to depict the statement.



[Watch Video Solution](#)

18. Gopaiah sowed wheat and paddy in two fields of total area 5000 square meters. Write a linear equation and draw a graph to represent the same?



Watch Video Solution

19. The force applied on a body of mass 6 kg. is directly proportional to the acceleration produced in the body. Write an equation to express this observation and draw the graph of the equation.



[Watch Video Solution](#)

20. A stone is falling from a mountain. The velocity of the stone is given by $V = 9.8t$. Draw its graph and find the velocity of the stone '4' seconds after start.



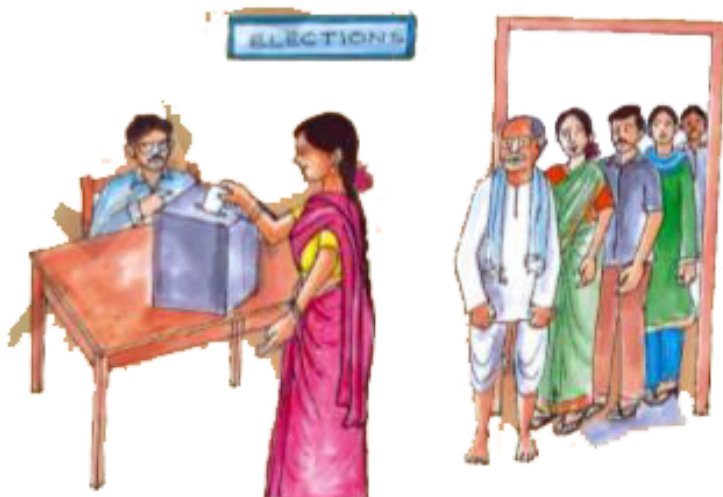
[Watch Video Solution](#)

Exercise 8 4

1. In an election 60% of voters cast their votes. Form an equation and draw the graph for this data. Find the following from the graph.

(i) The total number of voters, if 1200 voters cast their votes

(ii) The number votes cast, if the total number of voters are 800





[Watch Video Solution](#)

2. When Rupa was born, her father was 25 years old. Form an equation and draw a graph for this data. From the graph find

(i) The age of the father when Rupa is 25 years old.

(ii) Rupa's age when her father is 40 years old.



[Watch Video Solution](#)

3. A lending library has fixed charge for the first three days and an additional charges for each day thereafter. John paid 27 for a book kept for seven days. If the fixed charges be x and subsequent per day charges be y , then write the linear equation representing the above information and draw the graph of the same. From the graph, find fixed charges for the first three if additional charges for each day thereafter is 4. Find additional charges for each day thereafter if the fixed charges for the first three days of 7.



[Watch Video Solution](#)

4. The parking charges of a car in Hyderabad Railway station for first two hours is 50 and 10 for each subsequent hour. Write down an equation and draw the graph. Find the following charges from the graph

(i) For three hours (ii) For six hours

(iii) How many hours did Rekha park her car if she paid 80 as parking charges?



[Watch Video Solution](#)

5. Sameera was driving a car with uniform speed of 60 kmph. Draw distance-time graph.

From the graph find the distance travelled by

Sameera in

(i) $(1) \frac{1}{2}$ hours (ii) 2 hours (iii) $(3) \frac{1}{2}$ hours



Watch Video Solution

6. The ratio of molecular weight of Hydrogen and Oxygen in water is 1:8. Set up an equation

between Hydrogen and Oxygen and draw its

graph. From the graph find the quantity of Hydrogen if Oxygen is 12 grams. And quantity of oxygen if hydrogen is $\frac{3}{2}$ gms.?



[Watch Video Solution](#)

7. In a mixture of 28 litres, the ratio of milk and water is 5:2. Set up the equation between the mixture and milk. Draw its graph. By observing the graph find the quantity of milk in the mixture.



[Watch Video Solution](#)

8. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

Draw the graph of the above linear equation having Celsius on x-axis and Fahrenheit on Y-axis.



Watch Video Solution

9. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

If the temperature is 30°C , what is the temperature in Fahrenheit?



Watch Video Solution

10. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

If the temperature is 95°F , what is the temperature in Celsius?



Watch Video Solution

11. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts Fahrenheit to Celsius $F = \left(\frac{9}{5}\right)C + 32$

Is there a temperature that has numerically the same value in both Fahrenheit and Celsius? If yes find it?



Watch Video Solution

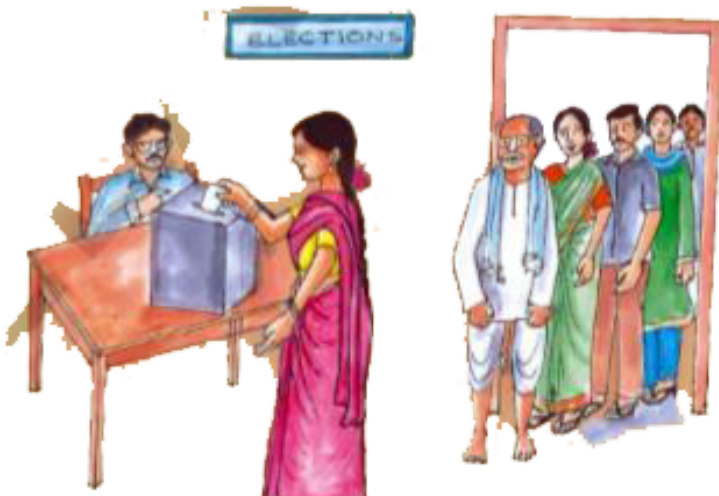
12. In an election 60% of voters cast their votes.

Form an equation and draw the graph for this

data. Find the following from the graph.

(i) The total number of voters, if 1200 voters cast their votes

(ii) The number votes cast, if the total number of voters are 800





[Watch Video Solution](#)

13. When Rupa was born, her father was 25 years old. Form an equation and draw a graph for this data. From the graph find

(i) The age of the father when Rupa is 25 years old.

(ii) Rupa's age when her father is 40 years old.



[Watch Video Solution](#)

14. An auto charges 15 for first kilometer and 8 each for each subsequent kilometer. For a distance of 'x' km. an amount of 'y' is paid.

Write the linear equation representing this information and draw the graph. With the help of graph find the distance travelled if the fare paid is 55? How much would have to be paid for 7 kilometers?



Watch Video Solution

15. A lending library has fixed charge for the first three days and an additional charges for each day thereafter. John paid 27 for a book kept for seven days. If the fixed charges be x and subsequent per day charges be y , then write the linear equation representing the above information and draw the graph of the same. From the graph, find fixed charges for the first three if additional charges for each day thereafter is 4. Find additional charges for each day thereafter if the fixed charges for the first three days of 7.



[Watch Video Solution](#)

16. The parking charges of a car in Hyderabad Railway station for first two hours is 50 and 10 for each subsequent hour. Write down an equation and draw the graph. Find the following charges from the graph

(i) For three hours (ii) For six hours

(iii) How many hours did Rekha park her car if she paid 80 as parking charges?



[Watch Video Solution](#)

17. Sameera was driving a car with uniform speed of 60 kmph. Draw distance-time graph.

From the graph find the distance travelled by

Sameera in

(i) $(1) \frac{1}{2}$ hours (ii) 2 hours (iii) $(3) \frac{1}{2}$ hours



Watch Video Solution

18. The ratio of molecular weight of Hydrogen and Oxygen in water is 1:8. Set up an equation

between Hydrogen and Oxygen and draw its

graph. From the graph find the quantity of Hydrogen if Oxygen is 12 grams. And quantity of oxygen if hydrogen is 32 gms.?



[Watch Video Solution](#)

19. In a mixture of 28 litres, the ratio of milk and water is 5:2. Set up the equation between the mixture and milk. Draw its graph. By observing the graph find the quantity of milk in the mixture.



[Watch Video Solution](#)

20. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

Draw the graph of the above linear equation having Celsius on x-axis and Fahrenheit on Y-axis.



Watch Video Solution

21. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

If the temperature is 30°C , what is the temperature in Fahrenheit?



Watch Video Solution

22. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

If the temperature is 95°F , what is the temperature in Celsius?



Watch Video Solution

23. In countries like USA and Canada temperature is measured in Fahrenheit whereas in countries like India, it is measured in Celsius. Here is a linear equation that converts

$$\text{Fahrenheit to Celsius } F = \left(\frac{9}{5}\right)C + 32$$

Is there a temperature that has numerically the same value in both Fahrenheit and Celsius? If yes find it?



Watch Video Solution

1. Give the graphical representation of the following equation.

(a) On the number line and (b) On the Cartesian plane

(i) $x = 3$ (ii) $y + 3 = 0$ (iii) $y = 4$ (iv) $2x - 9 = 0$

(v) $3x + 5 = 0$



[Watch Video Solution](#)

2. Give the graphical representation of $2x - 11 =$

0 as an equation in

(i) one variable (ii) two variables



Watch Video Solution

3. Solve the equation $3x + 2 = 8x - 8$ and represent the solution on

(i) the number line (ii) the Cartesian plane



Watch Video Solution

4. Write the equation of the line parallel to Y-axis and passing through the point

(i) $(-4, 0)$ (ii) $(2, 0)$ (iii) $(3, 5)$ (iv) $(-4, -3)$



Watch Video Solution

5. Write the equation of the line parallel to Y-axis and passing through the point

(i) $(-4, 0)$ (ii) $(2, 0)$ (iii) $(3, 5)$ (iv) $(-4, -3)$



Watch Video Solution

6. Write the equation of three lines that are

(i) parallel to the X-axis (ii) parallel to the Y-

axis



Watch Video Solution

7. Give the graphical representation of the following equation.

(a) On the number line and (b) On the Cartesian plane

(i) $x = 3$ (ii) $y + 3 = 0$ (iii) $y = 4$ (iv) $2x - 9 = 0$

(v) $3x + 5 = 0$



Watch Video Solution

8. Give the graphical representation of $2x - 11 = 0$ as an equation in

(i) one variable (ii) two variables



[Watch Video Solution](#)

9. Solve the equation $3x + 2 = 8x - 8$ and represent the solution on

(i) the number line (ii) the Cartesian plane



[Watch Video Solution](#)

10. Write the equation of the line parallel to X-axis, and passing through the point

(i) $(0, -3)$ (ii) $(0, 4)$ (iii) $(2, -5)$ (iv) $(3, 4)$



Watch Video Solution

11. Write the equation of the line parallel to Y-axis and passing through the point

(i) $(-4, 0)$ (ii) $(2, 0)$ (iii) $(3, 5)$ (iv) $(-4, -3)$



Watch Video Solution

12. Write the equation of three lines that are
(i) parallel to the X-axis (ii) parallel to the Y-axis



Watch Video Solution