



Chapter Test

Multiple Choice Questions

Q 1. $x = 2$ and $y = -1$ is a solution of the linear equation:

- a. $x + 2y = 0$ b. $x + 2y = 4$
c. $2x + y = 0$ d. $2x + y = 5$

Q 2. If $x = -4$ and $y = 5$ is a solution of the equation $7lx - 3y = 10$, then the value of l is:

- a. $\frac{25}{28}$ b. $-\frac{25}{28}$
c. $-\frac{28}{25}$ d. $\frac{28}{5}$

Assertion and Reason Type Questions

Directions (Q. Nos. 3-4) In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option:

- a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).
b. Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A).
c. Assertion (A) is true but Reason (R) is false.
d. Assertion (A) is false but Reason (R) is true.

Q 3. Assertion (A): A linear equation $3x + 5y = 15$ has a unique solution.

Reason (R): A linear equation in two variables has infinitely many solutions.

Q 4. Assertion (A): The linear equation $5x - 2y = 0$ passes through the point $(2, 2)$.

Reason (R): Every point lying on the graph is a solution of the equation $5x - 2y = 0$.

Fill in the Blanks

Q 5. The point $(-b, -b)$ always lies on the line having equation as

Q 6. The graph of the linear equation $3x + 6y = 12$ cuts the X-axis at the point

True/False

Q 7. If the cost of 3 cricket bat and 7 balls is ₹ 150, the expression in the form of linear equation is $3x + 7y = 150$

Q 8. The linear equation $3x - \frac{5}{2}y = 4$ passes through the point $(3, 2)$.

Case Study Based Question

Q 9. One renowned cell phone company has policy to make maximum number of users. So, he offered two different packages which are given below:



I Package: In this package, company charges a fixed monthly fees of ₹ 30 and call rate per minute is ₹ 0.40.

II Package: In this package, company charges a fixed monthly fees of ₹ 40 and call rate per minute is ₹ 0.50.

Consider x as the charges per minute and y as the total amount.

On the basis of the above information, solve the following questions:

I Package

- (i) Write the linear equation representing in this package.
(ii) If Anita do a call for 40 min, find the amount paid by Anita.

OR

If Kamla pays a total bill of ₹ 250, then find the number of minutes used by her.

II Package

- (iii) If Vimal used 50 minutes talk time, then how much amount paid by Vimal?

Very Short Answer Type Questions

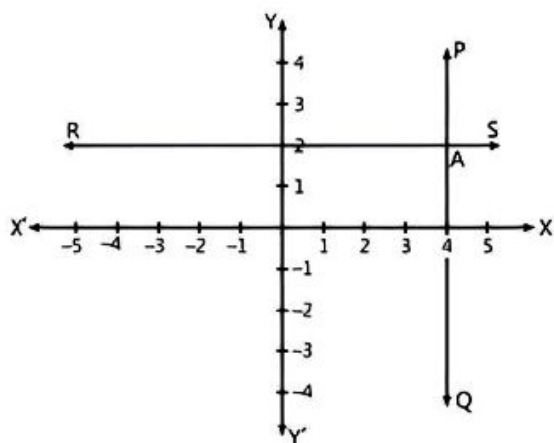
Q 10. For what value of c , the linear equation $2x + cy = 8$ has y as 4 times of x for its solution?

Q 11. Write one solution of $\pi x + 2y = 7$.

Short Answer Type-I Questions

Q 12. Let y varies directly as x . When $y = 8$ and $x = 4$, then write a linear equation. Also, determine the value of y when $x = 3$.

Q 13. Write the linear equation represented by lines PQ and RS. Also, find the coordinates of intersection of lines PQ and RS.



Short Answer Type-II Questions

- Q 14.** If $x = 1$ and $y = 6$ is a solution of the equation $8x - ay + a^2 = 0$, find the value of a .

- Q 15.** Write the equation $y\sqrt{2} = 7x + \sqrt{5}$ in the form of $ax + by + c = 0$. Check whether $\left(\frac{-\sqrt{5}}{7}, 0\right)$ and $(-1, 3)$ are the solutions of this equation.

Long Answer Type Question

- Q 16.** If the work done by a body on application of a constant force is directly proportional to the distance travelled by the body, then express this in the form of an equation in two variables and draw the graph of the same by taking the constant force as 2 units. Also, read from the graph, the work done when the distance travelled by the body is (i) 3 units (ii) 4 units.

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