



MATHS

BOOKS - VIDHYASANGAM - RAO'S ACADEMY MATHS (KANNADA ENGLISH)

LINEAR EQUATIONS IN TWO VARIABLES

Exercise 10 2

1. Which of the following options is true, and

why? y = 3x + 5 has

A. a unique solution

B. only two solutions

C. infinitely many solutions

D. none of these

Answer: C

2. Write four solutions for each of the

following equations.

$$2x + y = 7$$



3. Write four solutions for each of the following equations.

 $\pi x + y = 9$

4. Write four solutions for each of the following equations.

x - 4y = 0

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5. Check which of the following are solutions of the equation x - 2y = 4 and which are not ?

(0,2)

6. Check which of the following are solutions of the equation x-2y=4 and which are not ?

(2,0)

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7. Check which of the following are solutions of the equation x - 2y = 4 and which are not ?

(4,0)



9. Check which of the following are solutions of the equation x-2y=4 and which are not



10. Find the value of k, if x=2, y=1 is a

solution of the equation 2x + 3y = k.

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Exercise 10 3

1. Draw the graph of each of the following linear equations in two variable.

x + y = 4.



2. Draw the graph of each of the following linear equations in two variable.

x - y = 2

3. Draw the graph of each of the following

linear equations in two variable.

$$y = 3x$$
.

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4. Draw the graph of each of the following linear equations in two variable.

3 = 2x + y

5. Give the equations of two lines passing through (2,14). How many more such lines are there and why ?

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6. If the point (3,4) lines on the graph of the equation 3y = ax + 7, find the value of a.



7. The taxi fare in a city is as follows, for the first kilometre, the fare is Rs. 8 and for the subsequent distance it is Rs. 5 per km. Taking the distance covered as x km and total fare as Rs y, write a linear equation for this information and draw its graph.

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8. From the choices given below, choose the equation whose graphs are in fig (i) and fig (ii),

in fig (i)



A.
$$y=x$$

B.
$$x + y = 0$$

 $\mathsf{C}.\, y=2x$

D.
$$2 + 3y = 7x$$





9. From the choices given below, choose the equation whose graphs are in fig (i) and fig (ii),

in fig (ii)



A.
$$y=x+2$$

B.
$$y = x - 2$$

$$\mathsf{C}.\, y=\, -x+2$$

D.
$$x + 2y = 6$$

Answer: C



10. If the work done by a body in application of a constant force is directly proportional to the distance travelled by the body, express this in the form of an equation in two variables and draw the graph of the same by taking the constant force as 5 units. Also, send from the graph the work done when the distance travelled by the body is

2 units.



11. If the work done by a body in application of a constant force is directly proportional to the distance travelled by the body, express this in the form of an equation in two variables and draw the graph of the same by taking the constant force as 5 units. Also, send from the graph the work done when the distance

travelled by the body is

0 units.



12. Yamini and Fathina, two students of class IX of a school, together contributed Rs. 100 toewards the prime minister relief fund to help the earthquake victims. Write a linear equation which satisfies this data. (You may take their contribution as Rs. x and Rs. y) Draw the graph of the same.



$$F = \left(rac{9}{5}
ight)C + 32.$$

Draw the graph of the linear equation above using celsius for x-axis and fahrenheit for yaxis.

$$F = \left(rac{9}{5}
ight)C + 32.$$

If the temperature is 30° C, what is the tempetature in fahrenheit?

$$F = \left(rac{9}{5}
ight)C + 32.$$

If the temperature is $95^{\circ}F$, what is the temperature in celsius.



$$F = igg(rac{9}{5}igg)C + 32.$$

If the temperature if $0^{\circ}C$, what is the temperature in fahrenheit and if the temperature is $0^{\circ}F$, what is the temperature in celsius?

$$F = igg(rac{9}{5}igg)C + 32.$$

Is there a temperature which is numerically the same in both Fahrenheit and celsius? If yes, find it.

1. Give geometric representation of y=3 as an

equation

in one variable

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2. Give geometric representation of y=3 as an

equation

in two variables.



3. Give the geometric representation of 2x+9=0

as an equation

in one variable.

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4. Give the geometric representation of

2x+9=0 as an equation

in two variable.

