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## MATHS

## BOOKS - VIDHYASANGAM - RAO'S

 ACADEMY MATHS (KANNADA
## ENGLISH)

## LINEAR EQUATIONS IN TWO

## VARIABLES

1. Which of the following options is true, and why? $y=3 x+5$ has
A. a unique solution
B. only two solutions
C. infinitely many solutions
D. none of these

Answer: C
(D) Watch Video Solution
2. Write four solutions for each of the following equations.
$2 x+y=7$

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3. Write four solutions for each of the following equations.
$\pi x+y=9$

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4. Write four solutions for each of the following equations.
$x-4 y=0$

## D Watch Video Solution

5. Check which of the following are solutions of the equation $x-2 y=4$ and which are not ?
$(0,2)$
6. Check which of the following are solutions of the equation $x-2 y=4$ and which are not ?
$(2,0)$

## D Watch Video Solution

7. Check which of the following are solutions
of the equation $x-2 y=4$ and which are not
?
$(4,0)$
8. Check which of the following are solutions of the equation $x-2 y=4$ and which are not ?
$(\sqrt{2}, 4 \sqrt{2})$.

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9. Check which of the following are solutions of the equation $x-2 y=4$ and which are not
$(1,1)$

## D Watch Video Solution

10. Find the value of k , if $x=2, y=1$ is a solution of the equation $2 x+3 y=k$.

## D Watch Video Solution

1. Draw the graph of each of the following linear equations in two variable.
$x+y=4$.

- Watch Video Solution

2. Draw the graph of each of the following
linear equations in two variable.
$x-y=2$

- Watch Video Solution

3. Draw the graph of each of the following linear equations in two variable. $y=3 x$.

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4. Draw the graph of each of the following
linear equations in two variable.
$3=2 x+y$

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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 $3 y=a x+7$, find the value of $a$.
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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 xkm 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),

A. $y=x$
B. $x+y=0$
C. $y=2 x$
D. $2+3 y=7 x$

Answer: B

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

A. $y=x+2$
B. $y=x-2$
C. $y=-x+2$
D. $x+2 y=6$

Answer: C

## D Watch Video Solution

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.

## D Watch Video Solution

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.

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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.

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13. 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.
$F=\left(\frac{9}{5}\right) C+32$.
Draw the graph of the linear equation above using celsius for $x$-axis and fahrenheit for $y$ axis.

## D Watch Video Solution

14. 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.
$F=\left(\frac{9}{5}\right) C+32$.
If the temperature is $30^{\circ} \mathrm{C}$, what is the tempetature in fahrenheit?
15. 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.
$F=\left(\frac{9}{5}\right) C+32$.
If the temperature is $95^{\circ} \mathrm{F}$, what is the temperature in celsius.

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16. 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.
$F=\left(\frac{9}{5}\right) C+32$.
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?
17. 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 which is numerically
the same in both Fahrenheit and celsius? If
yes, find it.
18. 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 $2 x+9=0$ as an equation
in one variable.

## - Watch Video Solution

4. Give the geometric representation of
$2 x+9=0$ as an equation
in two variable.
$\square$
