



LINEAR EQUATIONS

IN ~~TWO~~ VARIABLES



CLASS - 9

9



HELLO!

I am MOHAMMED YUSUF SHADIK

I am here because I love to give presentations.

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# OBJECTIVES

- The students **recall** the linear equations in one variable.
- The students **know** the standard form of linear equations in two variables.
- The students will **express** the given problem mathematically in linear equations in two variables.
- The students will **learn** how to solve linear equations in two variables.
- The students will **solve** the problem.
- The students will **evaluate** the solution of the given problem.



Linear Equation:  $x+1 = 0$  is an example for linear equation in one variable. Consider  $2x+5 = 0$ . The solution to this equation is  $x = -5/2$ . This can be represented in a number line.



## POINTS TO REMEMBER

The solution of the linear equation is not affected when (i) the same number is added to ( Or subtracted from ) both the sides of the equation.

(ii) You multiply or divide both the sides of the equation by the same non-zero number



## A PICTURE IS WORTH A THOUSAND WORDS



Suppose in a ODI cricket match, two Indian batsmen together scored 176 runs. Express this in the form of an equation.

Let us denote the score of the two batsmen as  $x$  and  $y$ . As the score of neither of them is known, we express this as  $x + y = 176$ .

Class-9 Exercise 4.2

1) Let the cost of the pen be  $x$ .  
Let the cost of the notebook be  $y$ .

By Given condition,

$$y = 2x$$
$$\therefore 2x - y = 0$$

(or)

Let the cost of the pen be  ~~$x$~~   $y$ .  
Let the cost of the notebook be  ~~$y$~~   $x$ .

By Given condition,

$$x = 2y$$
$$\therefore x - 2y = 0$$

2) i)  $2x + 3y = 9.35$   
 $2x + 3y - 9.35 = 0$   
 $a = 2; b = 3; c = -9.35$

ii)  $x - \frac{y}{5} - 10 = 0$      $a = 1; b = -\frac{1}{5}; c = -10$

iii)  $-2x + 3y = 6$   
 $-2x + 3y - 6 = 0$   
 $a = -2; b = 3; c = -6$

iv)  $x = 3y$   
 $x - 3y = 0$   
 $a = 1; b = -3; c = 0$

v)  $2x = -5y$   
 $2x + 5y = 0$   
 $a = 2; b = 5; c = 0$

vi)  $3x + 2 = 0$      $3x + 0 \cdot y + 2 = 0$   
 $a = 3; b = 0; c = 2$

## CONTINUED...

$$(vi) y - 2 = 0.$$

$$0 \cdot x + 1 \cdot y - 2 = 0$$

$$a = 0; b = 1; c = -2$$

$$(viii) 5 = 2x$$

$$-2x + 0 \cdot y + 5 = 0$$

$$a = -2; b = 0; c = 5.$$

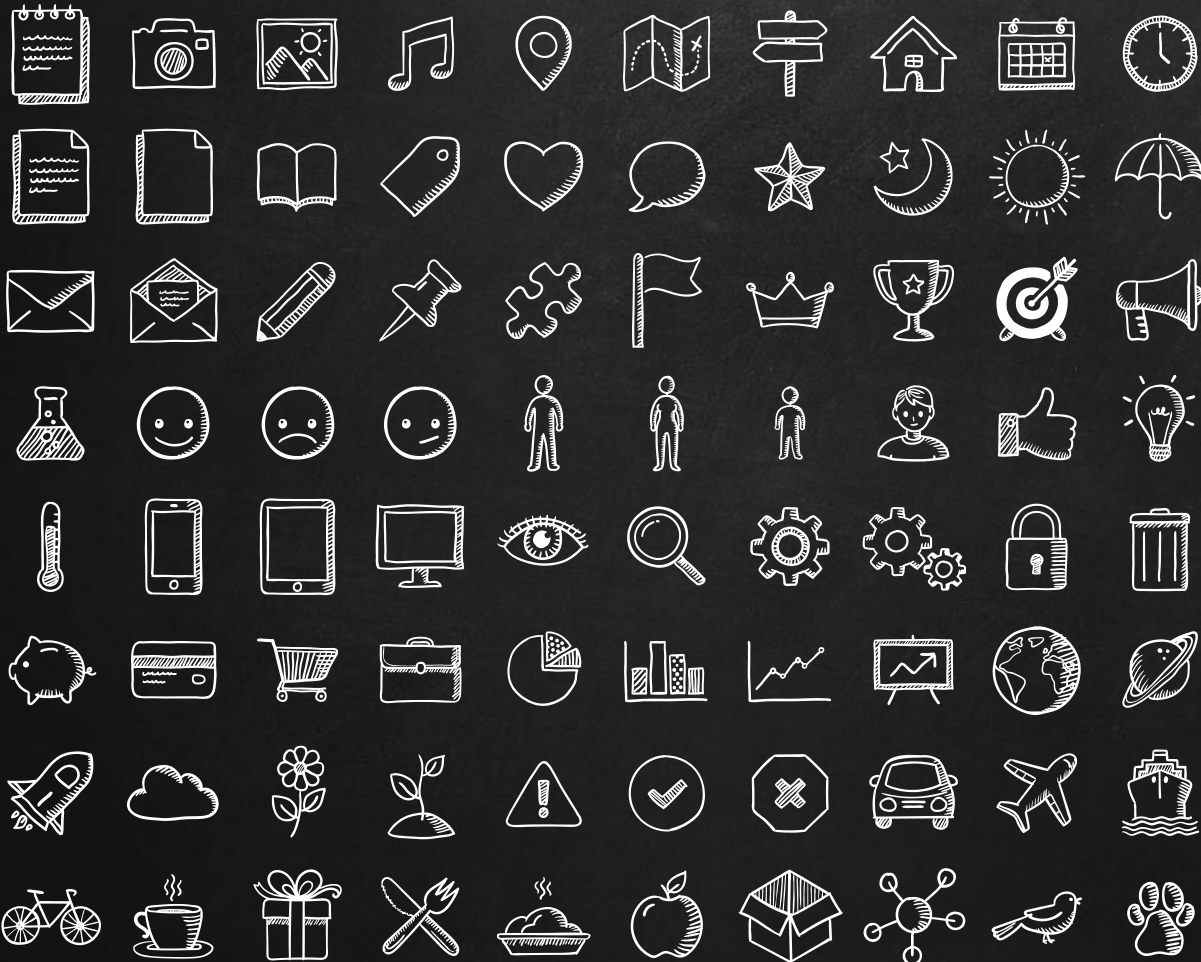




THANKS!

Any questions?

You can find me at  
@username  
user@mailme



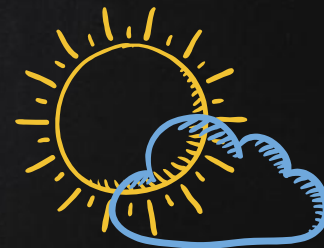
SlidesCarnival icons are editable shapes.

This means that you can:

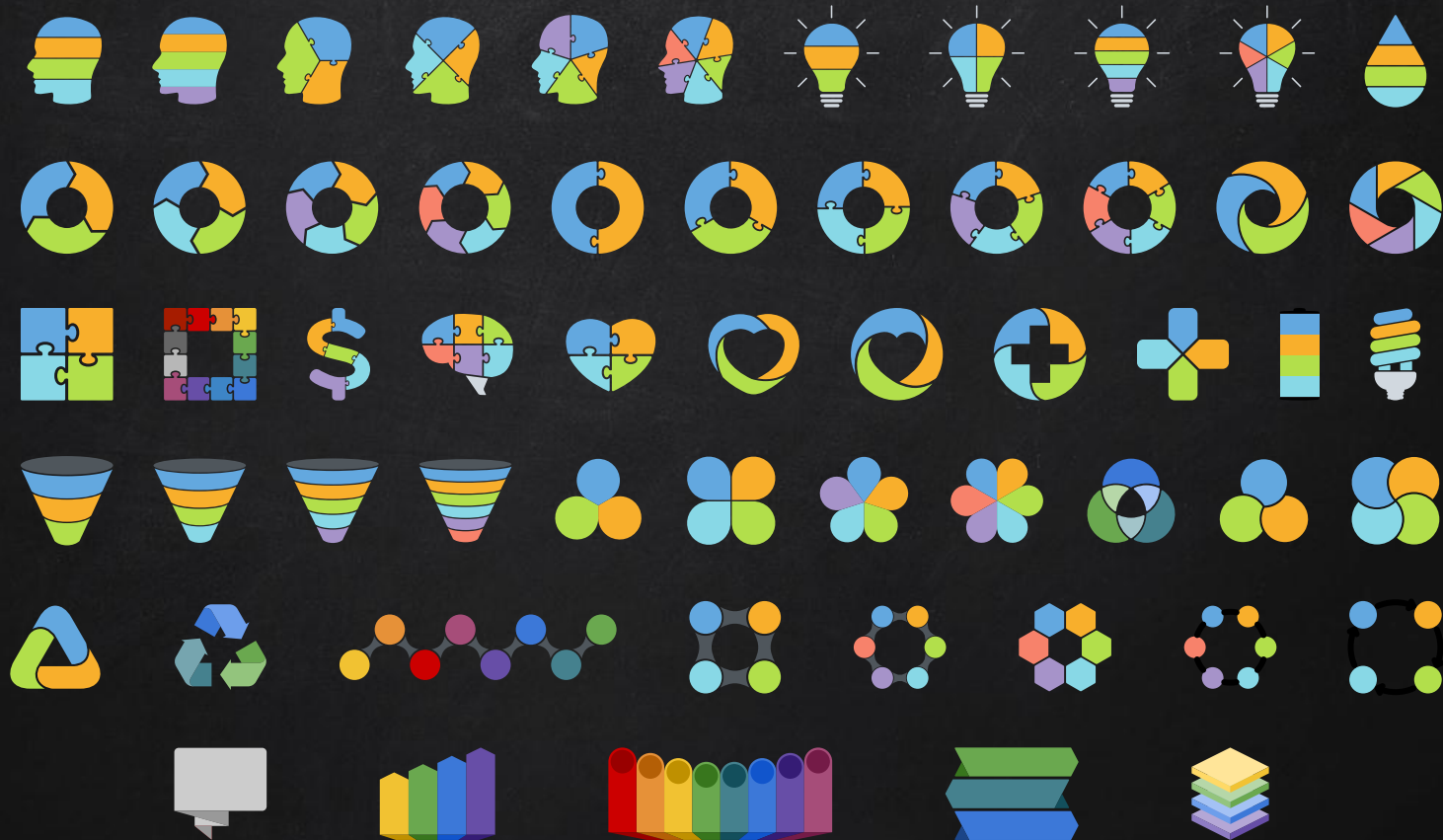
- Resize them without losing quality.
- Change fill color and opacity.

Isn't that nice? :)

Examples:



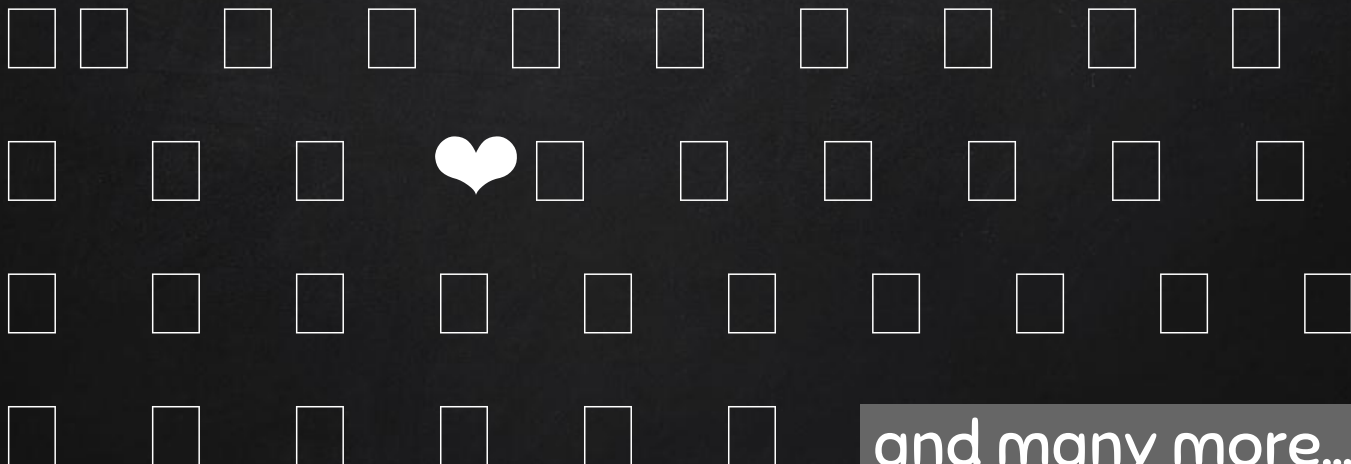
# DIAGRAMS AND INFOGRAPHICS





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