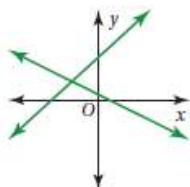


## Key Idea

### Solutions of Systems of Linear Equations

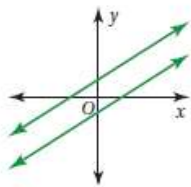
A system of linear equations can have *one solution*, *no solution*, or *infinitely many solutions*.



**One solution**

The lines intersect.

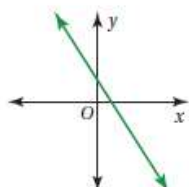
- different slopes



**No solution**

The lines are parallel.

- same slope
- different y-intercepts



**Infinitely many solutions**

The lines are the same.

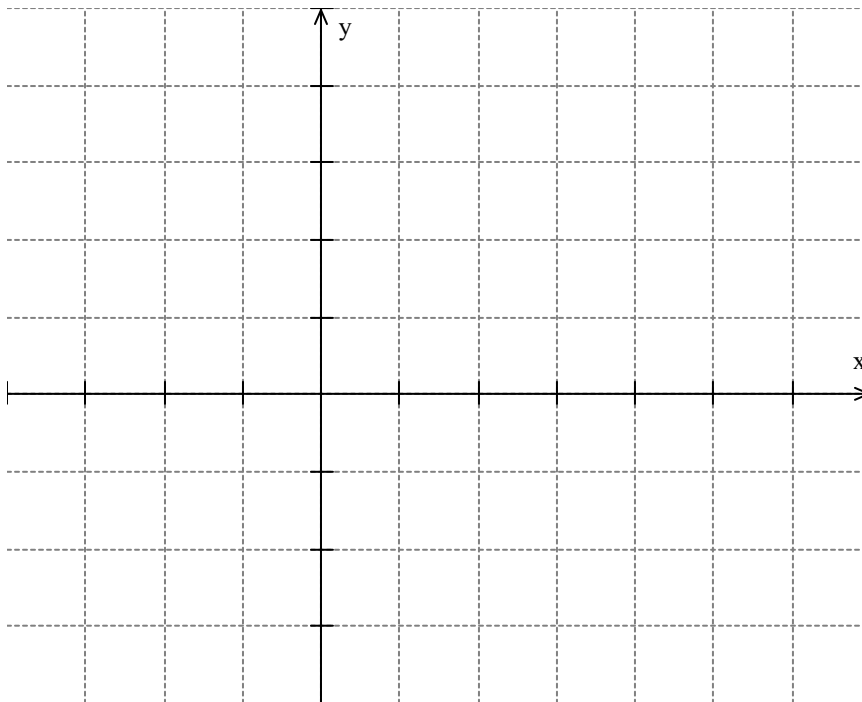
- same slope
- same y-intercept

Ex:) Solve the system by graphing.

Notes:

$$y = 3x + 1$$

$$y = 3x - 3$$



OYO:) Solve the system using substitution or elimination.

Notes:

$$y = 3x + 1$$

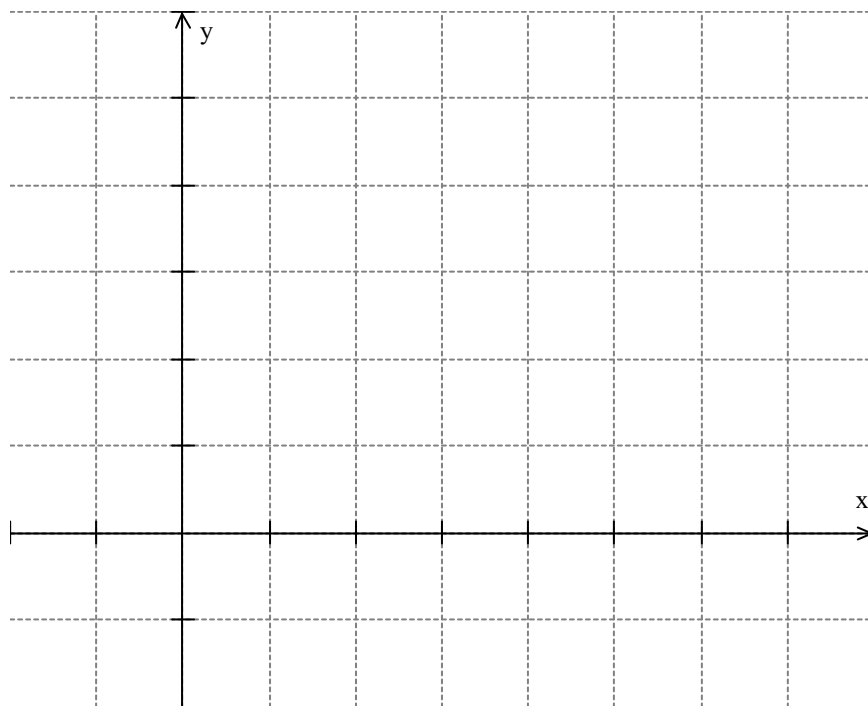
$$y = 3x - 3$$

OYO:) Solve the system by graphing.

Notes:

$$x + 2y = 6$$

$$3x + 6y = 18$$



OYO:) Solve the system using substitution or elimination.

Notes:

$$x + 2y = 6$$

$$3x + 6y = 18$$

### Solving Special Systems

	What happens with an Inconsistent System?	What happens with a Consistent, Dependent System?
Graphing		
Substitution Elimination		

## Modeling Real Life

Use the VESI process to solve the system using either algebraic method.

Notes:

Ex:) You and your friend plant an urban garden. You pay \$15.00 for 6 tomato plants and 6 pepper plants. Your friend pays \$22.50 for 9 tomato plants and 9 pepper plants. How much does each plant cost?