## Solving Equations by Graphing

| Graph |  |  |  |
| :---: | :---: | :---: | :---: |
| Number of Solutions | $\bigcirc N E$ | Fntinite | NoNe |
| Case | Intersect | Same | Paralle\| |

## INDEPENDENT vs. DEPENDENT

INDEPENDENT $=$ Diffelent Lines

DEPENDENT $=$ Same Lines

## STANDARD FORM

$$
\begin{aligned}
& \text { } \mathbf{A x}+B y=C \quad \text { to } \quad y=m x+b \\
& \text { 1. Get rid of "Ax" } \\
& \text { 2. Get " } y \text { " by itself }
\end{aligned}
$$

## EXAMPLE \#1

 Solve by Graphing$2 x+4 y=4$
$-2 x \quad-2 x$
$\frac{4 y}{4}=\frac{-2}{4} \times \frac{4}{4}$
$y=-1 / 2 x+1$
$-3 \mathrm{x}+3 \mathrm{y}=9$
$+3 x+3 x$
$\frac{3 y}{3}=\frac{3 x}{3}+\frac{9}{3}$



