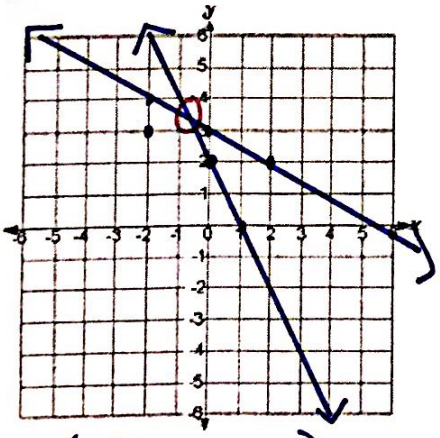
5-4 Choosing a Method of Solving Systems

Method: graphing	Method: substitution	Method: elimination
Best used when: • both equations are in slope-intercept form AND an approximate solution is ok.	**Best used when:** • when one variable is already isolated. • one variable has a coefficient of one (Ex. $3x+y=6$)	**Best used when:** • both equations are in standard form. • one variable has opposite coefficients
Example: $\begin{cases} y=-2x+2 \\ y=-\frac{1}{2}x+3 \end{cases}$ $\frac{-2}{1}$ $\frac{-1}{2}$  $(-3/4, 3\frac{1}{2})$	**Example:** $\begin{cases} y=-3x+7 \\ 2x+4y=8 \end{cases}$ $2x+4(-3x+7)=8$ $2x-12x+28=8$ $-10x+28=8$ $-28 \quad -28$ $\frac{-10x}{-10}=\frac{-20}{-10}$ $x=2$ $y=-3x+7$ $y=-3(2)+7$ $y=-6+7$ $y=1$ $(2,1)$	**Example:** $\begin{cases} 5x-3y=1 \\ x+3y=11 \end{cases}$ + $\frac{6x}{6}=\frac{12}{6}$ $x=2$ $x+3y=11$ $2+3y=11$ $-2 \quad -2$ $\frac{3y}{3}=\frac{9}{3}$ $y=3$ $(2,3)$