## Equations of Lines - Finding Intercepts

$A x+B y=C$

By looking at enough graphs of equations of lines, a pattern would emerge showing that a graph crosses the $y$-axis ( $y$-intercept) when the value of $x$ is zero. The graph crosses the x -axis ( x -intercept) when the value of y is zero. Knowing those intercepts (points) allows you to graph equations of lines by inspection.

1. Find the $x$ and $y$ intercepts for $3 x+4 y=12$
2. Find the $x$ and $y$ intercepts for $5 x+3 y=15$
3. Find the $x$ and $y$ intercepts for $3 x-7 y=21$
4. Find the x and y intercepts for $2 \mathrm{x}-3 \mathrm{y}=6$
5. Find the $x$ and $y$ intercepts for $3 x+5 y=10$
6. Find the $x$ and $y$ intercepts for $7 x-3 y=14$
7. Find the $x$ and $y$ intercepts for $4 x+5 y=13$
8. Find the x and y intercepts for $2 \mathrm{x}-9 \mathrm{y}=-12$
9. Graph problems one through five using the x and y intercepts.
10. Look at those graphs and find the slope by inspection. Do you see a relationship in the coefficients in the equations, $\mathrm{Ax}+\mathrm{By}=\mathrm{C}$, and the slopes of those lines? What is it?
