Advanced Precalculus
Equations of Lines

Name: _____

Stuff to Know about Lines...

1.) Slope-Intercept Form

2.) Point-Slope Form

3.) Standard Form

4.) Midpoint Formula

5.) Perpendicular and Parallel Slopes

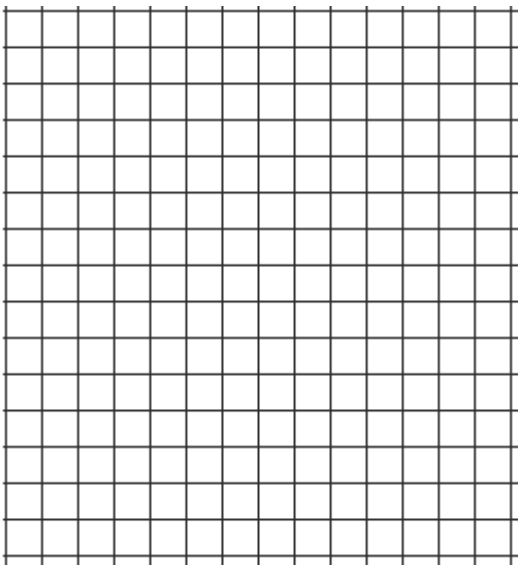
[EX 1] Find the equation of the line with $m=\frac{1}{2}$ containing the point $\left(\frac{2}{5,}3\right)$.

[EX 2] Find the equation of the line containing the points $\left(\frac{5}{2,}\frac{3}{4}\right)$ and $\left(-\frac{1}{4},\frac{5}{2}\right)$.

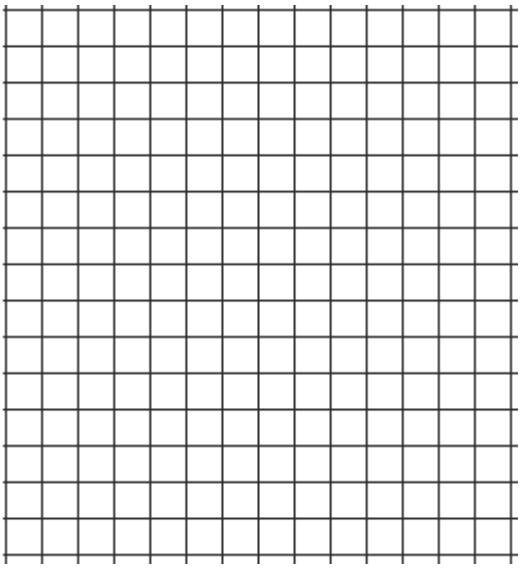
[EX 3] Find the equation of the line parallel to $2x+5y=18$ going through the point $(7,9)$.

[EX 4] Find the equation of the line perpendicular to $3x-8y=27$ going through the point $(-3,-1)$.

[EX 5] $\begin{cases} 6x+3y<18 \\ 2x+y\geq 1 \\ x\geq -4 \end{cases}$



[EX 6] $\begin{cases} 4y\leq 7x+28 \\ y<-\frac{1}{3}x+4 \\ y\geq 1 \end{cases}$



[EX 7]