General Algebra II Worksheet \#6 Unit 2 Selected Solutions
Find the equation of the line being described in each problem. If the line is oblique, then write its slope-intercept form. Graph both equations.
6. The line through $(-6,-4)$ that is parallel to $3 x-2 y=8$

$$
y=(3 / 2) x+5
$$

$$
\begin{aligned}
& \text { given line } \\
& 3 x-2 y=8 \\
& \text { new line parallel lines }-2 y=-3 x+8 \\
& \begin{array}{c}
m=3 / 2 \\
(-6,-4)
\end{array} \longleftarrow \quad \begin{array}{c}
y=(3 / 2) x-4 \\
\text { slope }=3 / 2
\end{array} \\
& y+4=(3 / 2)(x+6) \\
& y+4=(3 / 2) x+9 \\
& y=(3 / 2) x+5
\end{aligned}
$$


8. The line through $(0,-1)$ that is perpendicular to $-4 x+3 y=9 \quad y=(-3 / 4) x-1$

10. The line through $(-3,2)$ that is perpendicular to $\mathbf{y}=-4$
$x=-3$


