## Lines and Slopes - Worksheet

NAME:
DATE:

1. Find the slope and the $y$-intercept of the line whose equation is $3(x-2)+2 y=6-(y-4)$.
2. Graph the equation of $2 x+3 y=0$.


## Graphs - Worksheet

1. Find the graph of the equation in the standard viewing window.
(a) $y-2 x=4$
(b) $y=.3 x^{2}+x-4$
2. Graph the equation in a suitable square viewing window.

$$
25(x-5)^{2}+36(y+4)^{2}=900
$$

3. Use your minimum finder to approximate the x-coordinates of the lowest point on the graph of $y=x^{3}-2 x+5$ in the window $0 \leq x \leq 5$ and $-3 \leq y \leq 8$. The correct answer is

$$
x=\sqrt{\frac{2}{3}} \cong 0.816496580928
$$

4. Use the zoom-in or a maximum/minimum finder to determine the highest and lowest point on the graph in the given window.

$$
\begin{gathered}
y=.07 x^{5}-.3 x^{3}+1.5 x^{2}-2 \\
(-3 \leq x \leq 2)(-6 \leq y \leq 6)
\end{gathered}
$$

