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## Homework Week of Jan. 6

Graph the linear function.
1.) $f(x)=-\frac{1}{4} x+3$

2.) $f(x)=6 x-5$


Solve each inequality.
3.) $3(w+9) \leq-27$
4.) $-4(d+1)<-12$

Graph the absolute value functions.
5.) $f(x)=-2|x+3|-4$

6.) $f(x)=\frac{2}{3}|x-1|-3$

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Solve.
7.) If you are solving a system of equations and both equations are exactly the same, how many solutions will you have?

$$
\begin{aligned}
& -4 x+5 y=25 \\
& -4 x+5 y=25
\end{aligned}
$$

8.) If you are solving a system and both variables are exactly the same but the constants are different, how many solutions will you get?

$$
\begin{gathered}
2 x-8 y=-24 \\
2 x-8 y=6
\end{gathered}
$$

9.) Write a system of linear equations that will have no solution.
10.) Write a system of linear equations that will have infinitely many solutions.

Solve.
11.) $5 x+y=9$
$10 x-7 y=-18$
12.) $8 x+14 y=4$
$-6 x-7 y=-10$

