Pre-Cal Chapter 1 Classwork 1

1. Determine if the line containing the points (-3, 5) and (-1, 1) and the line containing the points (-6, 10) and (2, 14) parallel, perpendicular, or neither. Show work to justify your answer.

2. a) Find the equation of the line perpendicular to $x+3y=1$ that passes through the point $(-2,5)$ in Slope-intercept form.

   b) Convert your answer in part a) to standard form.

3. Write the equation of the line that is parallel to $x=5$ that passes through the point $(-1,3)$.

Given: $f(x)=-4x+1;\quad g(x)=x^2+x+5;\quad h(x)=|3x|-4$

4. $g(f(h(-2)))=$

5. $f(g(x))=$

6. $g(f(x))=$

7. $\dfrac{f(2+h)-f(2)}{h}=$

8. $\dfrac{g(x+h)-g(x)}{h}=$

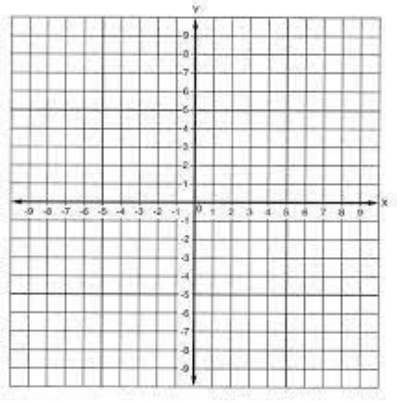
Given: $f(x)=\begin{cases}2x^2-6x+1; & x\le -2\\ -3x+2; & -2<x<1\\ |1-2x|-5; & x\ge 1\end{cases}$

9. $f(-2)=$

10. $f(0)=$

11. $f(7)=$

12. *Graph* $f(x)=\begin{cases}x^2-1; & x\le -2\\ -3; & -2<x<1\\ 2x-5; & x\ge 1\end{cases}$



13. Write the range.