Name: _____ Class: _____ Date: _____ ID: A

Unit #2 Part #2 Test Review-Review Assignment #3-Solving and Graphing Absolute Value Equations, Inequalities and Functions (Reference: Lessons #74, #91, #94, #101 & #107 in book)

Problem

1. **For each of the following equations please solve for x and express the solution in solution set notation.**

   1. $5|2x+6|-7=33$

2. $3|2(x-4)-x+2|+4=22$

3. $4|4(x-3)+2(-x+2)|-3=37$

4. $3|-3(x-2)+2(2x+1)-6|-4=8$

5. **For each of the following inequalities please solve for x, graph the inequality, and give me the solution in interval notation.**

   5. $5|2x+3|-3\geq 22$

6. $3|2(2x-3)-2x+2|+4\leq 22$

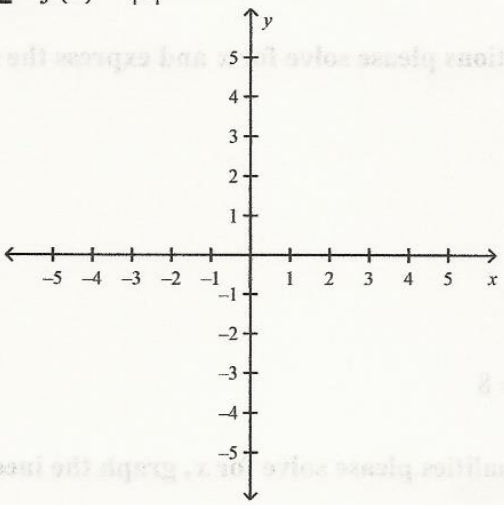
7. $-3|3(x+3)+2(-x+2)-8|-3>-27$

8. $4|-3(x-2)+2(2x+1)-3x|-4<16$

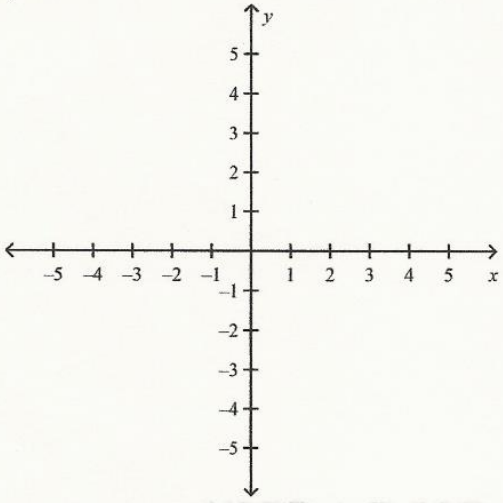
MORE PROBLEMS ON BACK!!

9. **To graph each of the following, first graph the parent function below, then graph each of the following functions using what you know about translations and explain how each graph compairs (translations) to the parent graph. (Write your explainations to the right of each graph.)**

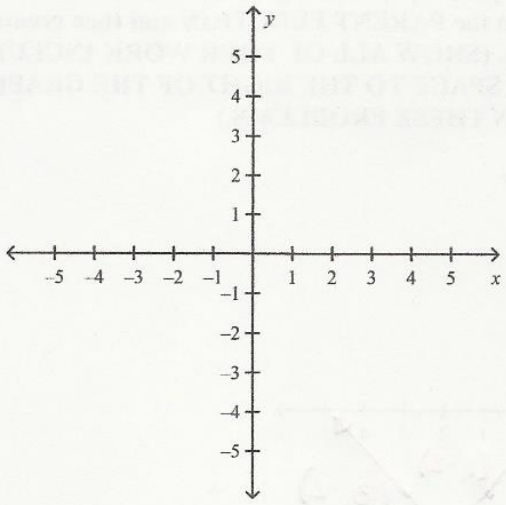
PARENT FUNCTION: $f(x) = |x|$



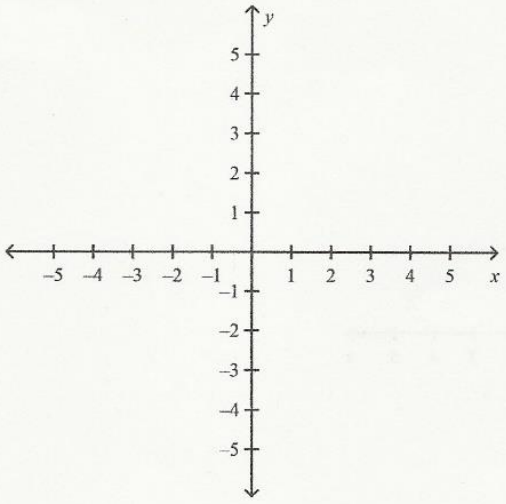
9. $f(x) = |x-4|+2$



10. $f(x) = -2|x-4|+3$



11. $f(x) = \frac{1}{3}|2(x+2)-3-x|-76+80$



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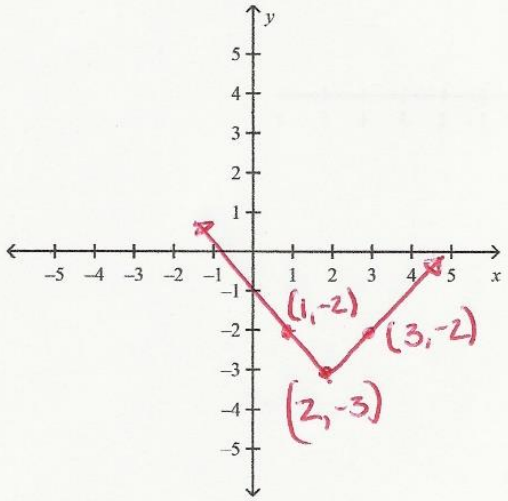
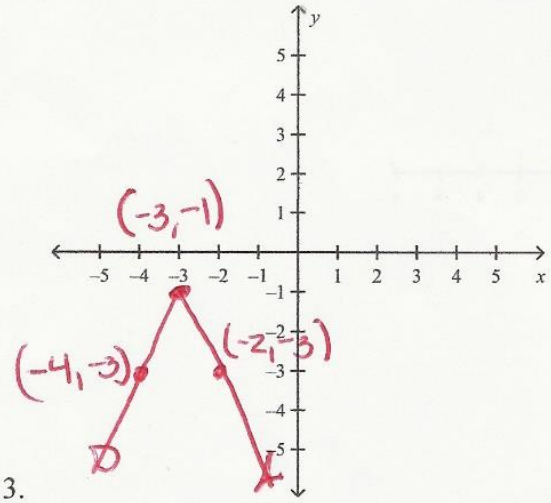
12. **For each of the following graphs, interpret the graphs, determine the shifts that need to have gone on to reach the given graph in comparison to the PARENT FUNCTION and then create the ABSOLUTE VALUE FUNCTION that would model that graph. (SHOW ALL OF YOUR WORK INCLUDING FINAL ABSOLUTE VALUE FUNCTION IN THE OPEN SPACE TO THE RIGHT OF THE GRAPH.) (YOU DO NOT NEED TO EXPLAIN THE SHIFTS IN WORDS IN THESE PROBLEMS.)**



12.



13.

14.