Date:

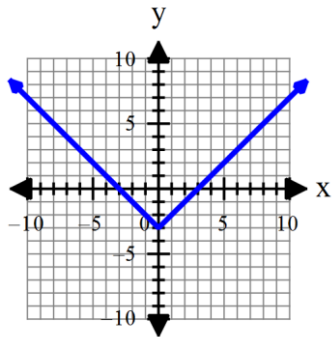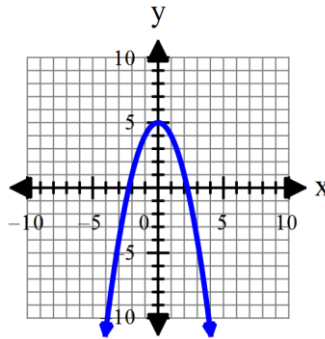**Objective:**

A. Function

B. One-to-one functions

- Determine if the graphs below are:
  a) a function
  b) the inverse of the graph is a function
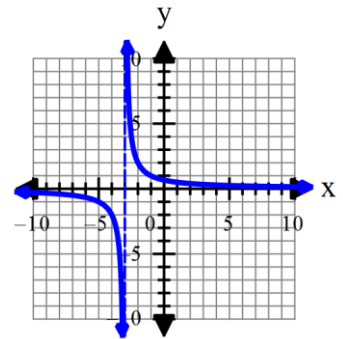 c) a one-to-one function

#1   **#2**   **#3**

C. Graphing inverses: To find the inverse if given a table, _____ - _____ the x- and y-values.

Examples: Use the table of the relation to create the table of the relation's inverse.

1.

x	$f(x)$
0	1
5	2
10	-3
15	-10
20	-16

x	$f^{-1}(x)$

2.

x	$f(x)$
-8	0.6
-6	0.8
-4	1
-2	1.2
0	1.4

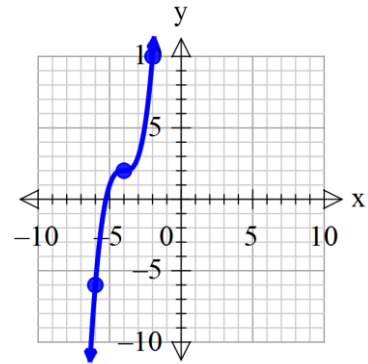| x	$f^{-1}(x)$

Examples: Label each given point. Then graph the inverse of the point and label it. Draw the line of reflection and label it $y = x$. Draw the inverse of the graph. Be sure to label the new graph $f^{-1}(x)$.

1. Way 1
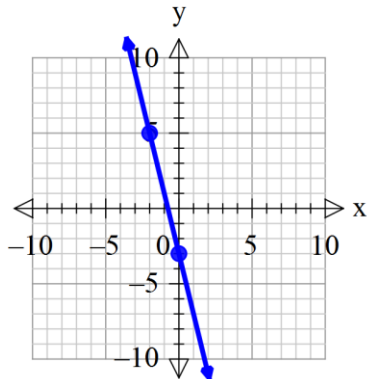
2. Way 2

D. Finding the inverse of an equation.

STEPS for finding the inverse of an equation:

1.

Examples: Find $f^{-1}(x)$

2.

1. $f(x)=1-3x$	2. $f(x)=x^3-1$	3. $f(x)=4x^2-5$
4. $f(x)=\dfrac{1}{4}\sqrt{x+3}$	5. $f(x)=2\sqrt[3]{x-2}-4$	6. $f(x)=(2x-7)^3+1$
7. $f(x)=\dfrac{2x+3}{5x-4}$	8. $f(x)=\dfrac{x-2}{4x+3}$	9. $f(x)=\dfrac{2x+1}{3x+5}$