Name_____ Date_____ Period_____

INVERSE FUNCTION WORKSHEET

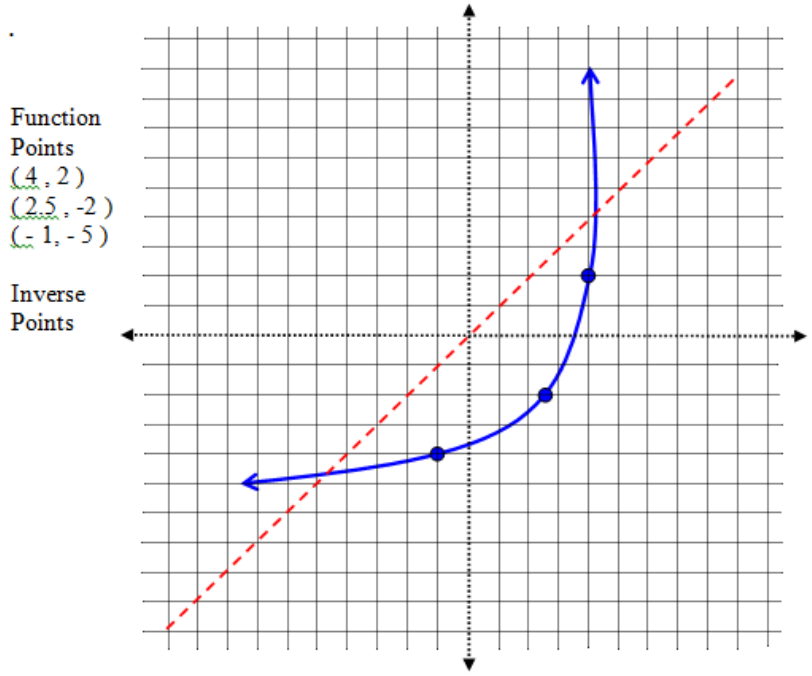
The procedure for finding the inverse of a linear function:

1) Substitute y for f(x)
2) Switch the "x" and the "y" in the equation
3) Solve for y. You have now solved for the inverse of the function.

Directions: Given the function $f(x)$, calculate the inverse $f^{-1}(x)$.

1. (- 2 , 4) 2. (4 , 7) 3. (0 , 11) 4. (- 3 , - 8)

5. Graph the inverse of the function shown below and find the inverse points.



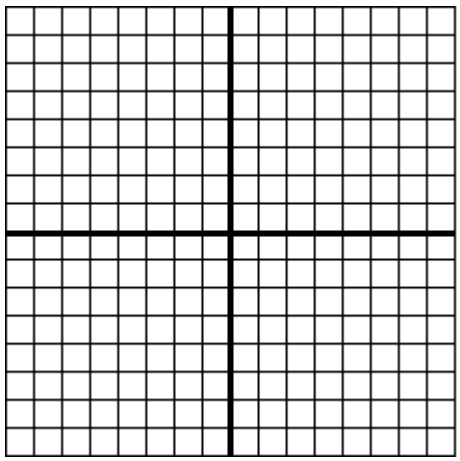
Directions: Given the function $f(x)$, calculate the inverse $f^{-1}(x)$.

6. $f(x) = 3x + 1$ 7. $f(x) = \frac{2}{5}x - 4$ 8. $f(x) = \frac{7x+5}{4}$

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

Directions: Sketch the graphs of the following functions. Apply the Horizontal Line Test to determine if the function has an inverse function. Determine the inverse and graph it.

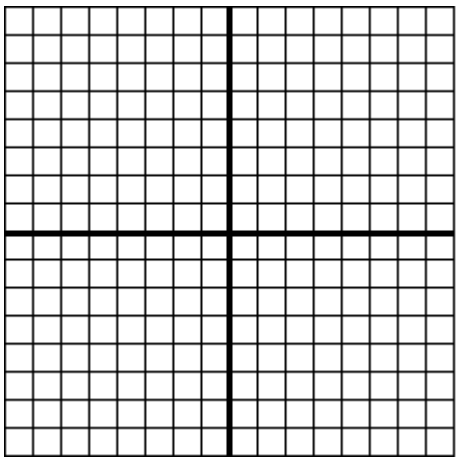
9. $f(x) = \frac{1}{2}x - 5$



Horizontal Line Test:
Is the inverse of $f(x)$ a function? _____

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

10. $f(x) = 2x - 1$



Horizontal Line Test:
Is the inverse of $f(x)$ a function? _____

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