

6.2 Inverse Functions & Relations- Day 1 Notes

Objective: Find and graph the inverse of a function or relation

An inverse relation is the set of ordered pairs obtained by _____

_____. If the inverse of $f(x)$ is a function, we use inverse function notation: $f^{-1}(x)$.

Graph the relation and connect the points. Then graph the inverse. Identify the domain & range of each relation.

Relation:

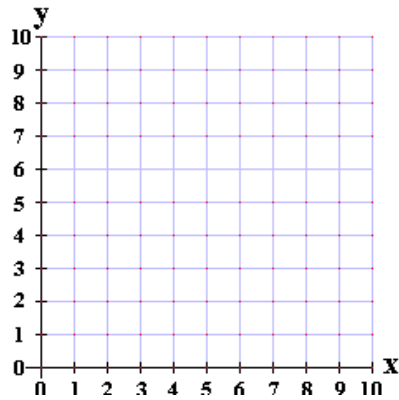
x	0	1	5	8
y	2	5	6	9

Domain:

Range:

Inverse:

x				
y				



Domain:

Range:

Property of Inverses: Two functions are inverses if they 'undo' one another. Inverse functions have their points reflected across the line $y=x$.

To find inverses of functions:

step 1: rewrite using x & y

step 2: switch the x & y

step 3: solve for y

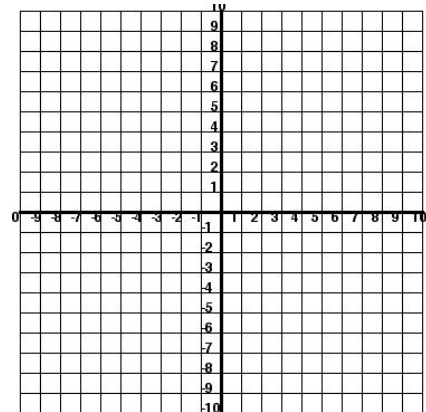
Write the inverse of the function. Graph both the function & its inverse (label each.)

Ex: $f(x) = 2x - 8$

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

x	y

x	y

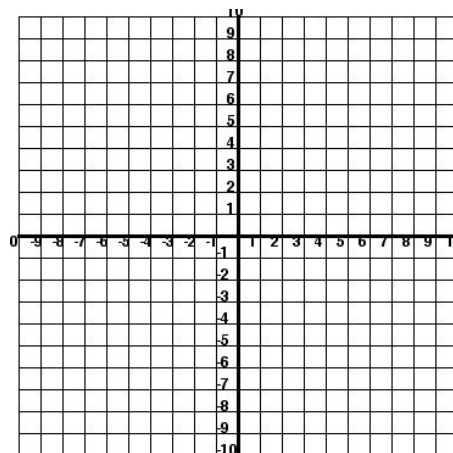


1. $f(x) = -3x + 6$

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

x	y

x	y



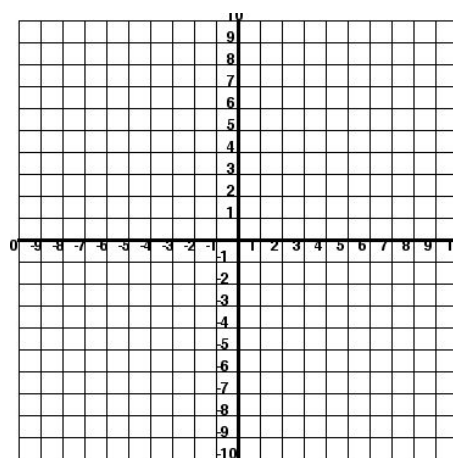
Write and graph the inverse of each function.

Ex. $f(x) = 3(x - 4)$

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

x	y

x	y

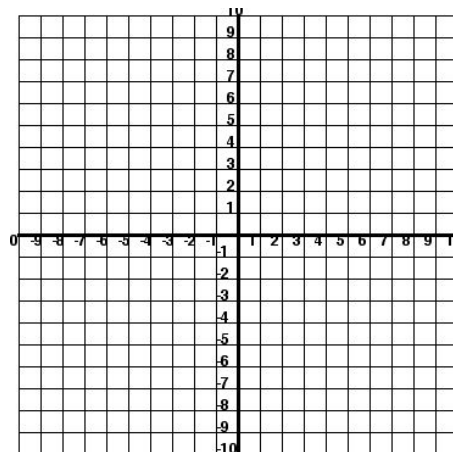


2. $f(x) = -5(x + 1)$

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

x	y

x	y



Write the inverse of each function.

Ex. $f(x) = -\frac{5}{3}x + 5$

3. $f(x) = -\frac{1}{3}x + 3$