Advanced Math

1-6

Inverse Functions

Inverse of a function

Blue Collar Definition - Two functions are inverses if

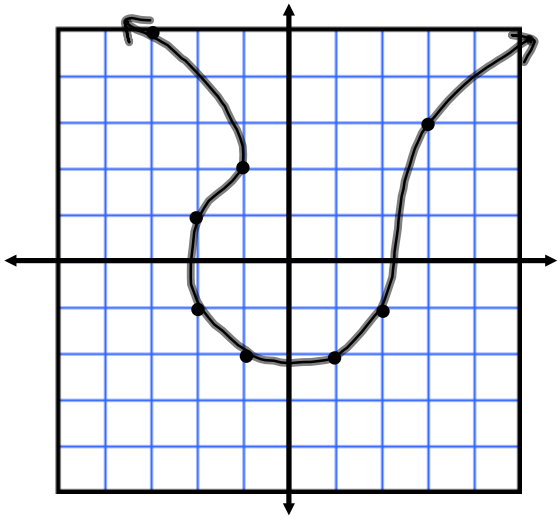
Graphical Definition - Two functions are inverses if

Mathematician's Definition - Two functions $f(x)$ and $g(x)$ are inverses iff

Show that f and g are inverse functions.

*) $f(x) = 5 - 4x$ $\qquad\qquad$ $g(x) = \dfrac{5 - x}{4}$

Sketch the inverse of each graph. Is the inverse a function?



<u>one-to-one function</u> -

Determine whether the function has an inverse. If it does, find it.
(Determine whether the inverse is a function or not. Find it regardless.)

49) $f(x) = (x + 3)^2$

Use the functions $f(x) = x + 4$ and $g(x) = 2x - 5$ to find the following:

75) $g^{-1} \circ f^{-1}$

Assignment:
pg. 180
1 - 4,
12 - 58 even,
76, 78, 81