Inverse of Functions

f(x) is a function with a domain D and Range R

then f^{-1} is the inverse function with domain is R and range is D

Data (1,2) and (3,4)

domain is 1,3 range is 2,4

The inverse function is

(2,1) and (4,3)

with domain is 2,4 and range is 1,3

Composite Functions

f and g written $(f \circ g)(x) = f(g(x))$

$f(x) = -6x$ f(y)=-6y f(2)=-12 f(10)= -60 f(6y)= 36y f(-6)=36x

$g(x) = -6x$

$f(g(x)) =$ f(-6x) = -6(-6x) = 36x

$g(f(x)) =$

(b) $f(x) = 2x + 3$

$g(x) = \frac{x - 3}{2}$

$f(g(x)) =$ x

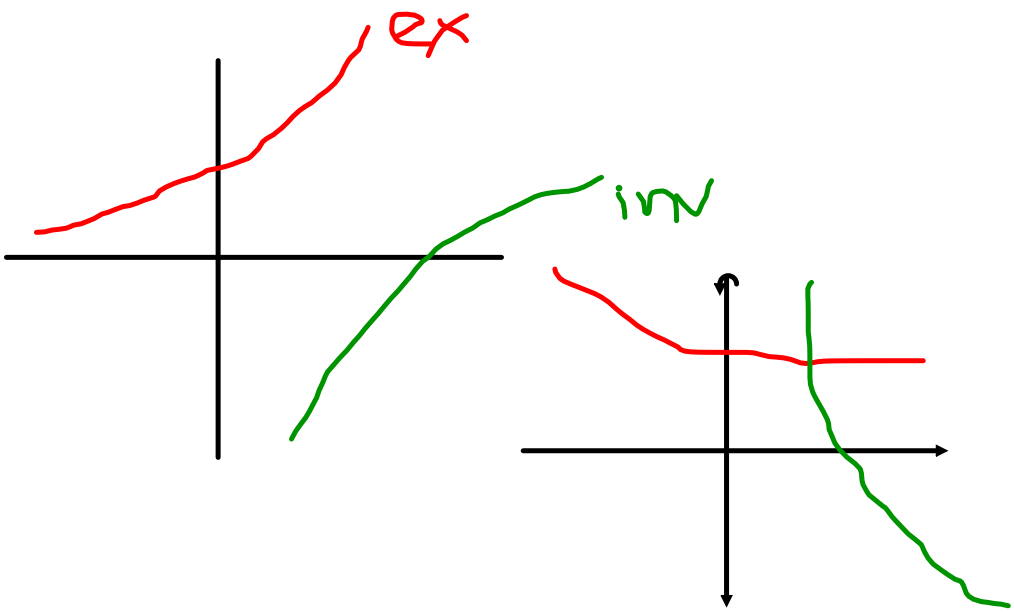
$g(f(x)) =$ x

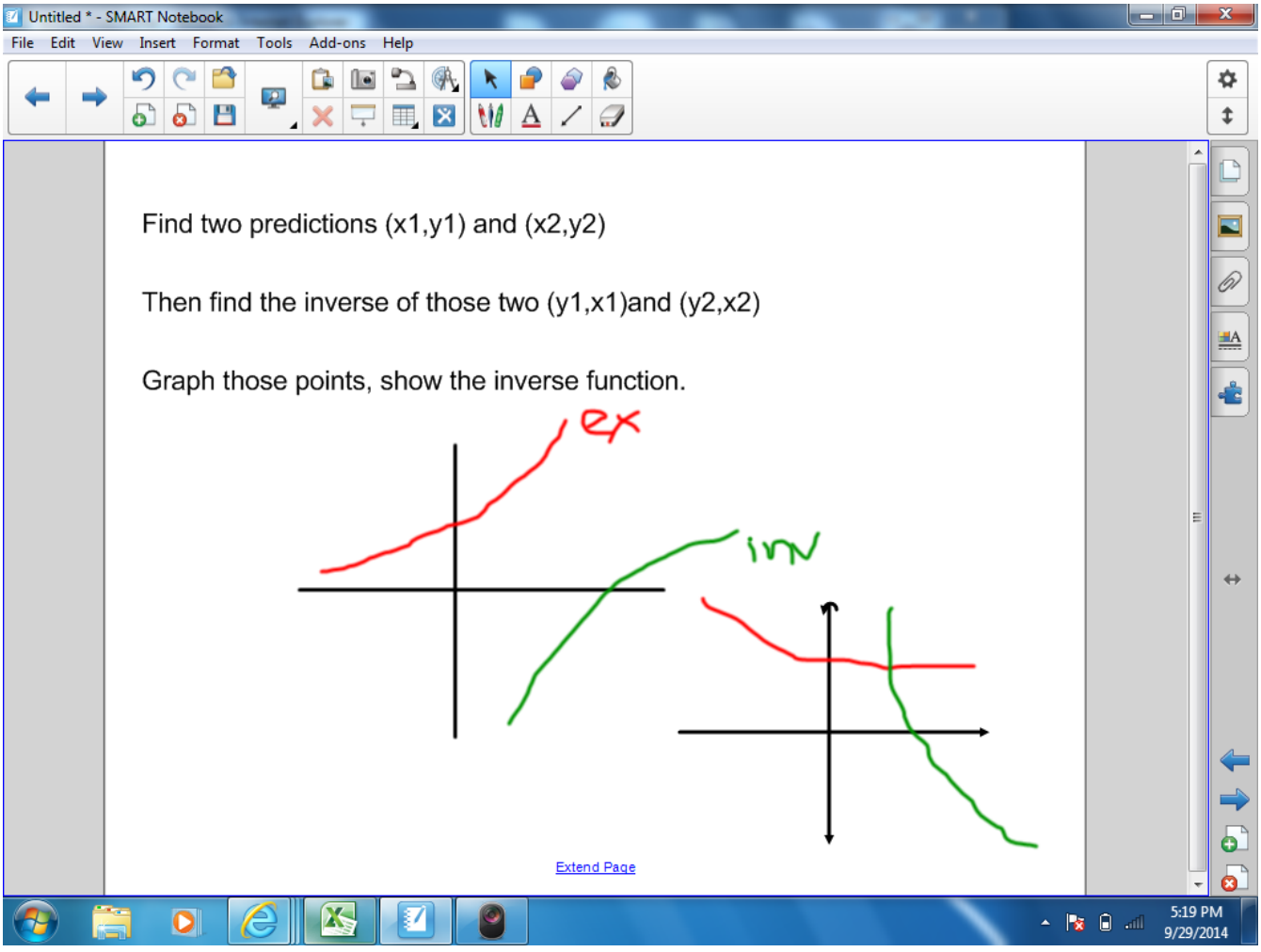
- f and g are inverses of each other
- f and g are *not* inverses of each other

Find two predictions (x1,y1) and (x2,y2)

Then find the inverse of those two (y1,x1)and (y2,x2)

Graph those points, show the inverse function.

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File Edit View Insert Format Tools Add-ons Help
Find two predictions (x1,y1) and (x2,y2)
Then find the inverse of those two (y1,x1)and (y2,x2)
Graph those points, show the inverse function.
ex
inv
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Graph $g(x) = 2\log_3 x$. y1=2log(x)/log(3)

x values to choose ...1/3,1,3,9,27,...