PAP Algebra II Name: _____

13.4 Verifying Inverses by Compositions of Functions

Determine $(f \circ g)(x)$ and $(g \circ f)(x)$ for each pair of functions $f(x)$ and $g(x)$. State whether the functions are inverses of each other or not.

A. $f(x) = 5^{x-1}$ $g(x) = x + 3$

B. $f(x) = 0.5x + 1.5$ $g(x) = 2x - 3$

C. $f(x) = 2x^2 - x$ $g(x) = \sqrt{x}$

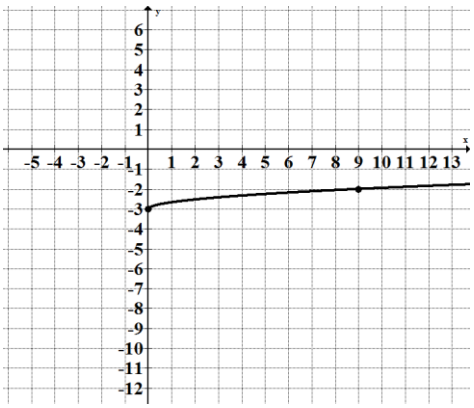
D. $f(x) = (x + 6)^2$ $g(x) = \sqrt{x} - 6$

E. $f(x) = 2\sqrt{x - 5}$ $g(x) = \frac{1}{4}x^2 - 5$

F. $f(x) = 4x + 6$ $g(x) = \frac{x-6}{4}$

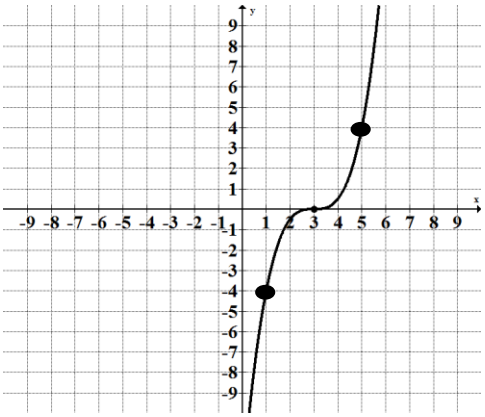
Radical functions and their Inverses from Graphs

A. Determine the equation of the given graph. You must calculate the "a" value.
B. Determine the inverse function of the given graph.

1. 

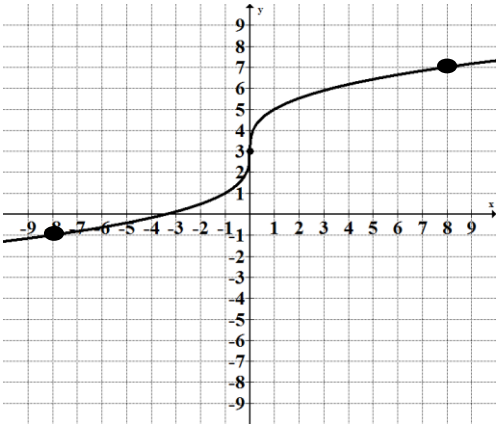
A. _____

B. _____

2. 

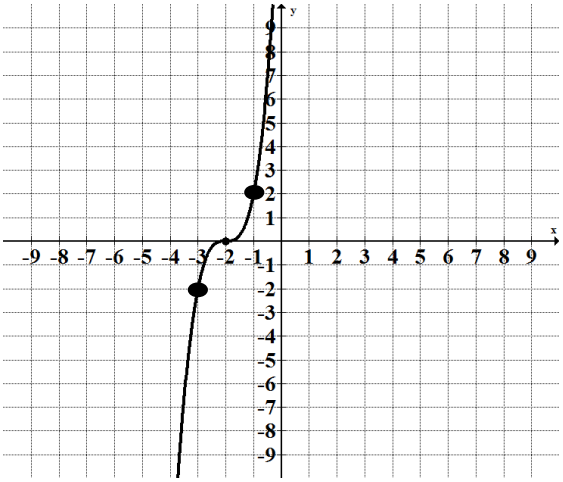
A._____

B._____

3. 

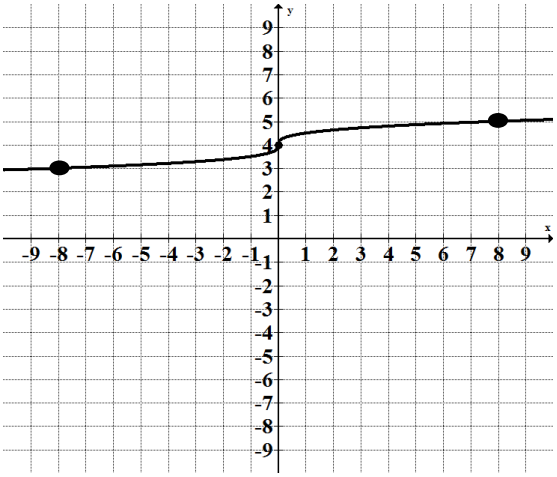
A._____

B._____

4. 

A._____

B._____

5. 

A._____

B._____