One to One Functions and Graphs of Inverses Practice

Graph the following Functions AND their inverses. Are the original functions one to one??
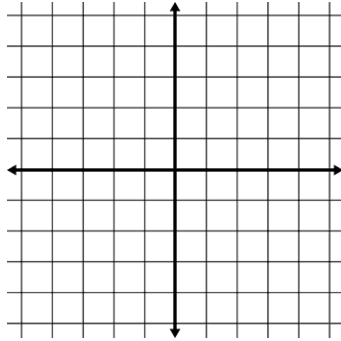
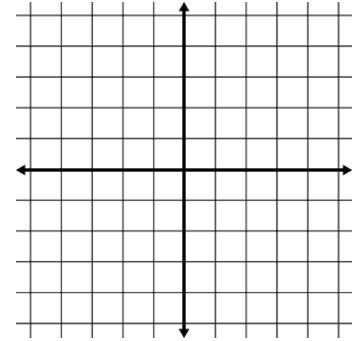### 1) f(x) = 3x - 2

function f(x):   **inverse f⁻¹(x):**

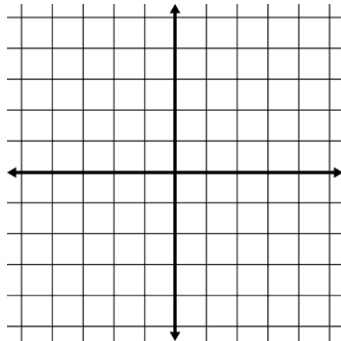one to one?

x	y
-1	
0	
1	
2	

x	y

2) f(x) = x² - 2

function f(x):   **inverse f⁻¹(x):**

one to one?

x	y
-2	
-1	
0	
1	
2	

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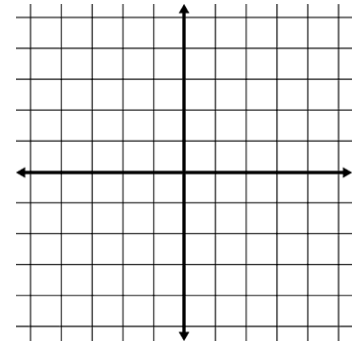
3) f(x) = $x^3 + 2$

function f(x):   **inverse f⁻¹(x):**

one to one?

x	y
-2	
-1	
0	
1	
2	
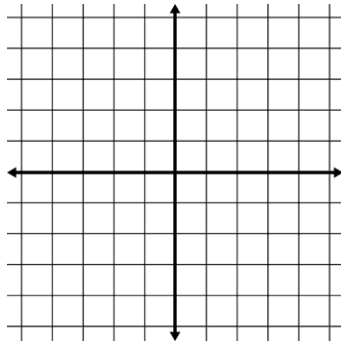
x	y
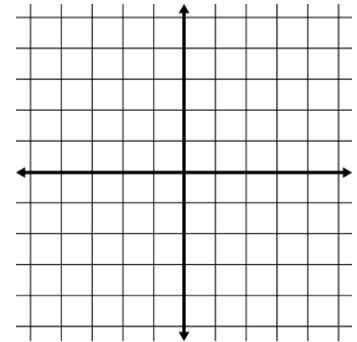
4) f(x) = -2x + 5

function f(x):   **inverse f⁻¹(x):**

one to one?

x	y
-4	
-3	
-2	
-1	
0	
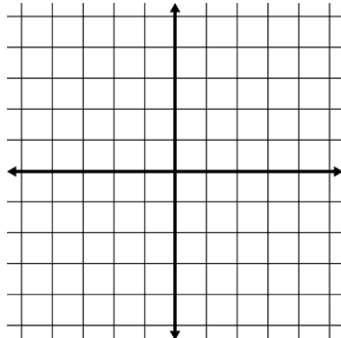
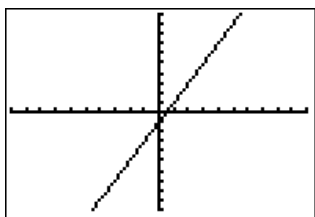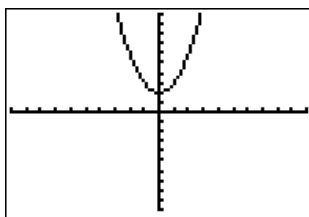| x	y
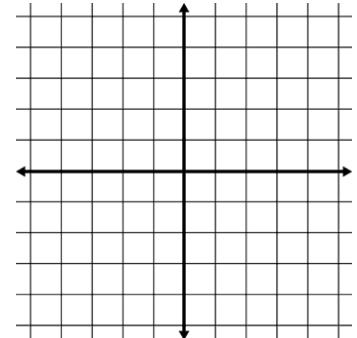
Are the following functions one to one?? (yes or no) (hint: use horizontal line test)
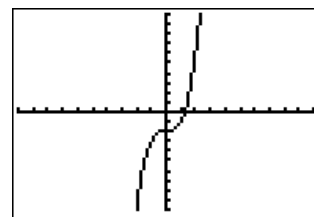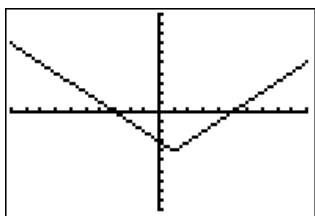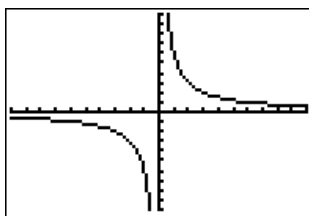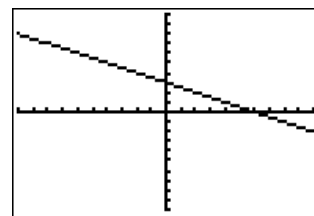
5) _____

6) _____

7) _____

8) _____

9) _____

10) _____

Find the inverse algebraically.

11) $g(x) = x^2 - 7$

12) $g(x) = 3x - 1$

13) $g(x) = \sqrt{3x + 9}$

Verify that f(x) and g(x) are inverse functions of each other using f(g(x)) and g(f(x)).

14) $f(x) = \dfrac{x-2}{3}$ $g(x) = 3x + 2$