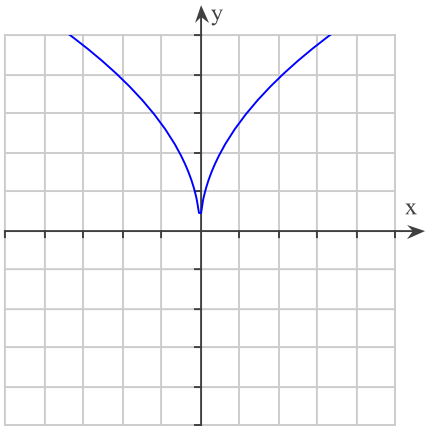
Student: _____ **Date:** _____ **Time:** _____	**Instructor:** Fred Khoury **Course:** Math 2312-1000 Precalculus (Fall - 2015) **Book:** Lial: College Algebra and Trigonometry, 4e	**Assignment:** Quiz Sec 1.5

1. Is the function one-to-one?



- ○ Yes
- ○ No

2. Is the function one-to-one?

$f(x) = x^2 + 7$

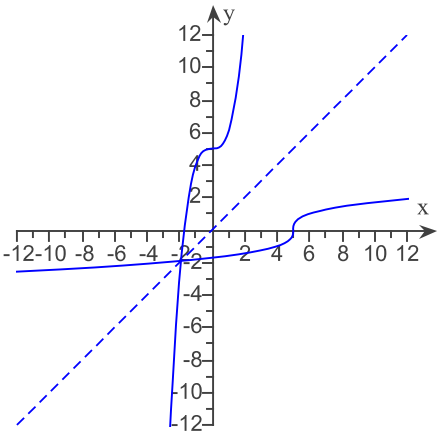
- ○ Yes
- ○ No

3. Is the function one-to-one?

$f(x) = 4x^3 - 5$

- ○ No
- ○ Yes

4. Are the given functions inverses?



- ○ No
- ○ Yes

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5. Are the given functions inverses?

$f(x) = \dfrac{1}{x+6}, \; g(x) = \dfrac{6x+1}{x}$

- ○ No
- ○ Yes

6. Are the given functions inverses?

$f(x) = x^3 - 7, \; g(x) = \sqrt[3]{x+7}$

- ○ No
- ○ Yes

7. If f is one-to-one, find an equation for its inverse.

$f(x) = x^3 + 7$

- ○ A. $f^{-1}(x) = \sqrt[3]{x} - 7$
- ○ B. $f^{-1}(x) = \sqrt[3]{x-7}$
- ○ C. $f^{-1}(x) = \sqrt[3]{x+7}$
- ○ D. The function is not one-to-one.

8. If f is one-to-one, find an equation for its inverse.

$f(x) = \dfrac{5}{x+6}$

- ○ A. $f^{-1}(x) = \dfrac{x}{6+5x}$
- ○ B. $f^{-1}(x) = \dfrac{-6x+5}{x}$
- ○ C. $f^{-1}(x) = \dfrac{6+5x}{x}$
- ○ D. The function is not one-to-one.

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9. If f is one-to-one, find an equation for its inverse.

$f(x) = 2x^2 - 9, x \geq 0$

A. $f^{-1}(x) = \sqrt{\dfrac{2}{x-9}}$, $x \neq -9$

B. $f^{-1}(x) = \sqrt{\dfrac{x+9}{2}}$, $x \geq -9$

C. $f^{-1}(x) = \dfrac{2}{\sqrt{x}-9}$

D. The function is not one-to-one.