SATPREP Name_____

Assignment: Inverse of Function

Date_____

Find the inverse of each function.

1) $g(x) = \dfrac{-8 + 3x}{2}$

2) $g(x) = -2x - 6$

3) $f(x) = \sqrt[3]{-x + 2}$

4) $f(x) = -2 - x^3$

State if the given functions are inverses.

5) $h(x) = -x^5$
$f(x) = \sqrt[3]{x} - 3$

6) $f(x) = \dfrac{2x - 2}{3}$
$g(x) = \dfrac{-15 - 8x}{5}$

7) $h(x) = 3 + (x - 2)^3$
$f(x) = \sqrt[3]{x - 3} + 2$

8) $f(x) = 4x + 9$
$g(x) = \dfrac{1}{4}x - \dfrac{9}{4}$

Find the inverse of each function. Then graph the function and its inverse.

9) $f(x) = \dfrac{-15 - 6x}{5}$

10) $f(x) = -\dfrac{1}{7}x + \dfrac{3}{7}$

11) $f(n) = \dfrac{10 + 3n}{5}$

12) $f(x) = -x - 2$

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Answers to Assignment: Inverse of Function

1) $g^{-1}(x) = \dfrac{2x + 8}{3}$

2) $g^{-1}(x) = \dfrac{-6 - x}{2}$

3) $f^{-1}(x) = -x^3 + 2$

4) $f^{-1}(x) = \sqrt[3]{-x - 2}$

5) No

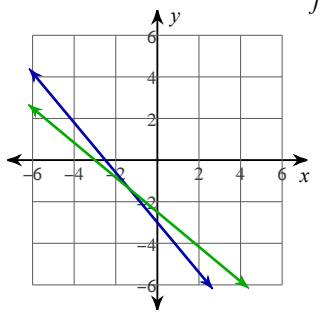
6) No

7) Yes

8) Yes

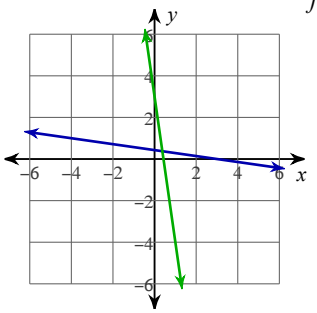
9)

$f^{-1}(x) = \dfrac{-5x - 15}{6}$



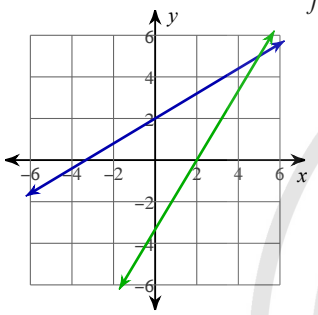
10)

$f^{-1}(x) = -7x + 3$



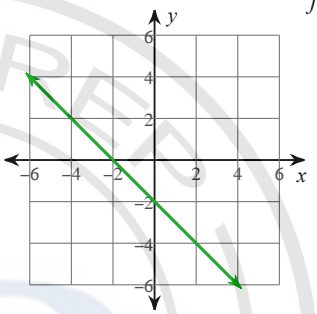
11)

$f^{-1}(n) = \dfrac{5n - 10}{3}$



12)

$f^{-1}(x) = -x - 2$



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