

Name _____
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Algebra II

Finding the Inverse of a Function

1. What is the inverse of the function $y = 2x - 3$?

(1) $y = \frac{x+3}{2}$

(3) $y = -2x + 3$

(2) $y = \frac{x}{2} + 3$

(4) $y = \frac{1}{2x-3}$

2. If a function is defined by the equation $y = 3x + 2$, which equation defines the inverse of this function?

(1) $x = \frac{1}{3}y + \frac{1}{2}$

(3) $y = \frac{1}{3}x - \frac{2}{3}$

(2) $y = \frac{1}{3}x + \frac{1}{2}$

(4) $y = -3x - 2$

3. If $f(x) = x^2$, find $f^{-1}(x)$

4. If $f(x) = 5x - 7$, find $f^{-1}(x)$

5. What is $g^{-1}(x)$ if $g(x) = 3x + 6$

6. What is $h^{-1}(x)$ if $h(x) = x^2 + 2$

7. What is the inverse of $y = \frac{1}{2}x + 2$?

8. For the function $f(x) = (x - 3)^3 + 1$, find $f^{-1}(x)$.

9. Given $f^{-1}(x) = -\frac{3}{4}x$, which equation represents $f(x)$?

1) $f(x) = \frac{4}{3}x$

2) $f(x) = -\frac{4}{3}x$

3) $f(x) = \frac{3}{4}x$

4) $f(x) = -\frac{3}{4}x$

10. Which graph represents the inverse of $f(x) = \{(0,1),(1,4),(2,3)\}$?

