NAME:_____

1. Find the inverse of the relation $f(x) = 2x - 3$.

2. Find the inverse of the relation $f(x) = 3x + 6$.

3. Write an equation for the inverse of $f(x) = \frac{x+3}{2}$.

4. Write an equation for the inverse of $f(x) = \frac{x+2}{8}$.

5. Which function is the inverse of $y = -2x + 3$?

[A] $y = 3x - 2$ [B] $y = \frac{x}{-2} - 3$

[C] $y = -\frac{1}{2}(x+3)$ [D] $y = -\frac{1}{2}(x-3)$

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6. Find the inverse, $f^{-1}(x)$, of the function $f(x) = \frac{2+3x}{4+3x}$, if it exists.

[A] $\frac{-4x+2}{3x-3}$ [B] $\frac{3+2x}{3+4x}$

[C] $\frac{3x+4}{3x+2}$ [D] $f^{-1}(x)$ does not exist.

7. Determine the equation for the inverse function of $y = (x - 2)^3 + 4$.

[A] $y = \sqrt[3]{x} - 2$ [B] $y = \sqrt[3]{x+2} - 4$

[C] $y = \sqrt[3]{x-6}$ [D] none of these

8. Determine the equation for the inverse function of $y = (x - 9)^3 - 2$.

[A] $y = \sqrt[3]{x-7}$ [B] $y = \sqrt[3]{x+2} + 9$

[C] $y = \sqrt[3]{x+9} + 2$

[D] none of these

9. Determine the equation for the inverse function of $y = (x-3)^3 + 3$.

10. Determine the equation for the inverse function of $y = (x+9)^3 - 4$.

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

[2] $f^{-1}(x) = \frac{x-6}{3}$

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

[4] $f^{-1}(x) = 8x-2$

[5] D

[6] A

[7] D

[8] B

[9] $y = \sqrt[3]{x-3} + 3$

[10] $y = \sqrt[3]{x+4} - 9$