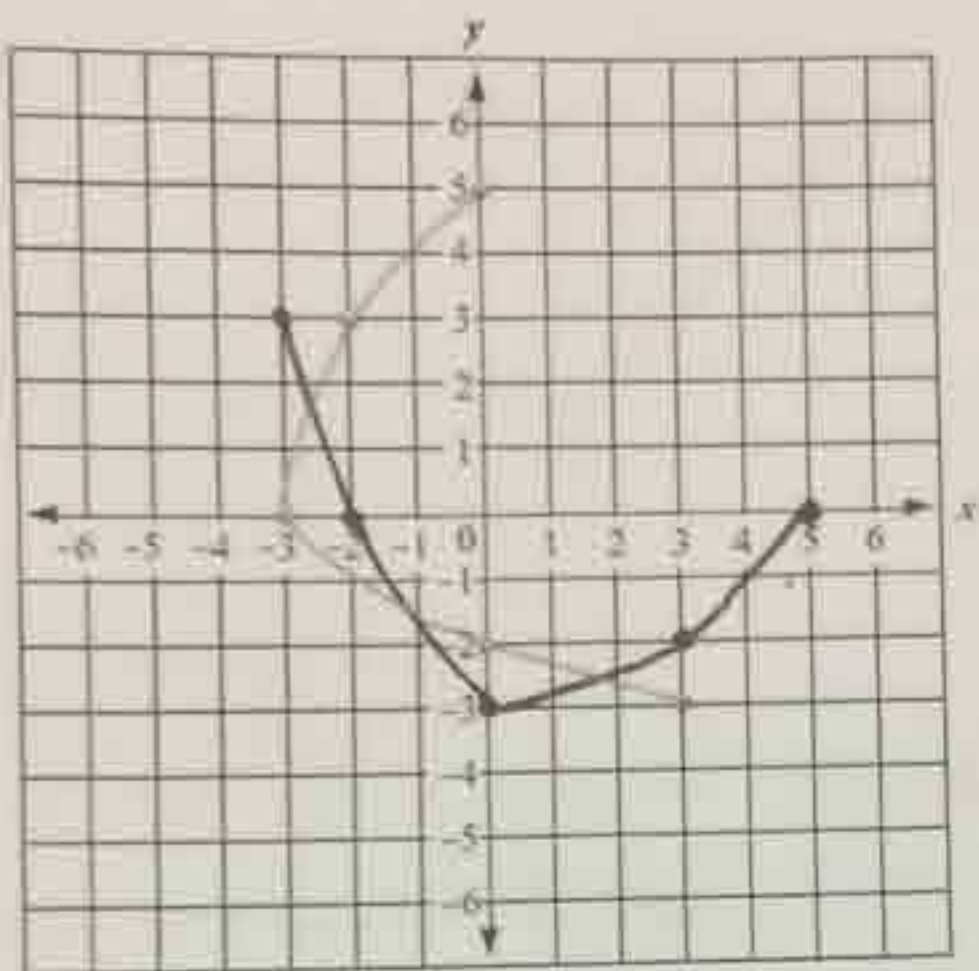


9. Given the graph of $f(x)$ sketch the graph of $f^{-1}(x)$.



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$$\begin{aligned} (x, y) &\rightarrow (y, x) \\ (-3, 3) &\rightarrow (3, -3) \\ (-2, 0) &\rightarrow (0, -2) \\ (0, -3) &\rightarrow (-3, 0) \\ (3, -2) &\rightarrow (-2, 3) \\ (5, 0) &\rightarrow (0, 5) \end{aligned}$$

10. Consider $f(x) = \frac{2}{7}x + 5$.

a. Find the inverse of $f(x)$.

$$x = \frac{2}{7}y + 5$$

$$x - 5 = \frac{2}{7}y$$

$$x - 5 \times \frac{7}{2} = y$$

$$y = \frac{7(x-5)}{2}$$

b. Using the equations of $f(x)$ and $f^{-1}(x)$ show that $f(f^{-1}(x)) = x$.

$$\frac{2}{7} \left(\frac{7(x-5)}{2} \right) + 5 = x$$

$$\frac{2}{7} \left(\frac{7x-35}{2} \right) + 5 = x$$

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$$\frac{14x-70}{14} + 5 = x$$

$$x - 5 + 5 = x$$

$$x = x$$