Topic 25: Find the inverse of a function, verifying

1. Given $f(x) = x^3 - 2$, find $f^{-1}(x)$. Graph both functions.

- 2. Given $f(x) = (x-3)^2$, $x \ge 3$, find $f^{-1}(x)$.
- 3. Given $f(x) = \frac{1}{x+3}$, find $f^{-1}(x)$.

Answers

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

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

3.
$$f^{-1}(x) = \frac{1-3x}{x}$$