

Problems 1 through 3 concern the function

$$f(x) = \frac{1}{3}(x^3 - 13x).$$

- 1) Graph $y = f(x)$ on the grid below.
- 2) Graph $y = f^{-1}(x)$ on the grid below by switching x and y in $y = f(x)$. Include the line $y = x$ on the graph.
- 3) Find the equation of the line tangent to $y = f^{-1}(x)$ at the point $(x, y) = (-4, 1)$. Graph the tangent line.

