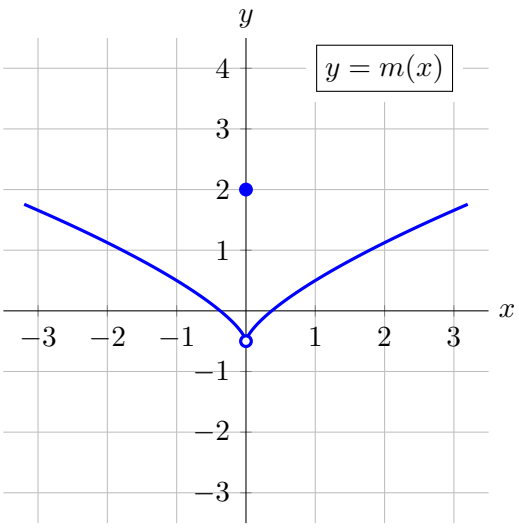
6. [8 points]

a. [4 points] Carefully draw the graph of a single function on the given axes that satisfies the given conditions, or, if no such function exists, write DNE.

A function $m(x)$ with domain containing $(-3, 3)$ such that

- $m(x)$ is even,
- $m(x)$ is continuous and decreasing on $(-3, 0)$,
- $m(x)$ is concave down on $(0, 3)$, and
- $m(x)$ is not continuous at $x = 0$.



b. [4 points] A portion of the graph of the function $g(x)$ is shown below on the left. Carefully sketch the graph of $g'(x)$ for $-4 < x < 4$ on the given axes on the right.