4. [9 points] On the axes provided below, sketch the graph of a single function $j(x)$ that satisfies all of the following conditions.

- The domain of the function $j(x)$ includes $-6 < x < 9$.
- On $-6 < x < 0$, the function $j(x)$ is the derivative of the function $m(x)$, which is shown in the graph to the right. Note that $m(x)$ is linear for $-6 < x < -5$ and is constant for $-1 < x < 0$.
- $j(x)$ is continuous on $0 < x < 5$.
- $j(x)$ is increasing and concave down on $0 < x < 3$.
- The average rate of change on $[3, 5]$ is $-\frac{1}{2}$.
- $\lim_{x \to 6} j(x)$ does not exist.
- $j(6) = -3$.
- The instantaneous rate of change of $j(x)$ at $x = 8$ is 2.