

7. [9 points] On the axes provided below, sketch the graph of a single function $y = h(x)$ satisfying all the following:

- The function $h(x)$ is defined for $-7 \leq x \leq 7$.
- $h(x)$ has global maximums at $x = -7$ and $x = 3$.
- $h(x)$ has an inflection point at $x = -5$.
- $h(x)$ is continuous at $x = -3$ but not differentiable at $x = -3$.
- $h(x)$ has a local minimum at $(-1, -4)$ but is not continuous at $x = -1$.
- $h(x)$ has a critical point at $(2, 5)$ that is neither a local maximum or a local minimum.
- $h(x)$ satisfies the conclusion of the Mean Value Theorem on $[4, 7]$ but not the hypothesis of this theorem.

Make sure that your graph is large and unambiguous.

