

9. [9 points] On the grid below, sketch the graph of a **single function** $f(x)$ that fulfills all the requirements below.

- The domain of f is $[-6, 5)$
- The range of f is $[-5, 6]$
- $f(-1) = 2$ and the average rate of change of $f(x)$ on the interval $[-1, 3]$ is -1
- $f(x) < 1$ for $x < -1$
- f has a constant rate of change on the interval $[-6, -1)$.
- f is increasing on the interval $[-6, -1)$
- f is concave down on the interval $[-1, 1)$
- f is decreasing on the interval $[1, 3]$
- f is concave up on the interval $(3, 5)$

