2. [8 points] On the axes provided below, sketch the graph of one possible function \( y = f(x) \), satisfying all of the following requirements. Your graph should clearly show the properties listed below to receive full credit.

\( \square \) The domain of \( f \) is \((-5, 6]\).
\( \square \) The range of \( f \) is \([-6, 4]\).
\( \square \) \( f(x) < 0 \) for \(-5 < x < 2\).
\( \square \) \( f \) is decreasing on \((-5, 2]\).
\( \square \) \( f \) is concave up for \(-5 < x < -2\).
\( \square \) \( f \) is concave down for \(-2 < x < 1\).
\( \square \) \( f(3) = -1 \).
\( \square \) \( f \) has a constant rate of change for \(4 < x < 6\).