6. [12 points] On the axes provided below, sketch the graph of a single function \( y = g(x) \) satisfying all of the following:

- \( g(x) \) is defined for all \( x \) in the interval \(-6 < x < 6\).
- For all \( x \) in the interval \(-6 < x < -4\), the function \( g(x) \) is continuous at \( x \) and \( g'(x) > 0 \).
- \( g(-4) = -1 \).
- \( \lim_{{x \to -4^+}} g(x) = 2 \).
- \( g(-3) = 1 \).
- \( g(-2) = -1 \).
- The function \( g(x) \) is continuous on the interval \([-3, -1]\).
- The average rate of change of \( g(x) \) between \( x = -3 \) and \( x = -1 \) is 2.
- \( g'(1) = 0 \).
- \( g(x) \) is not continuous at \( x = 2 \).
- The function \( g(x) \) is continuous on the interval \( 3 < x < 6 \).
- The slope of the tangent line to the graph of \( y = g(x) \) at \( x = 3 \) is positive.
- \( g(x) \) is increasing and concave down on the interval \( 4 < x < 6 \).

Make sure that your graph is large and unambiguous. Note that many solutions are possible.