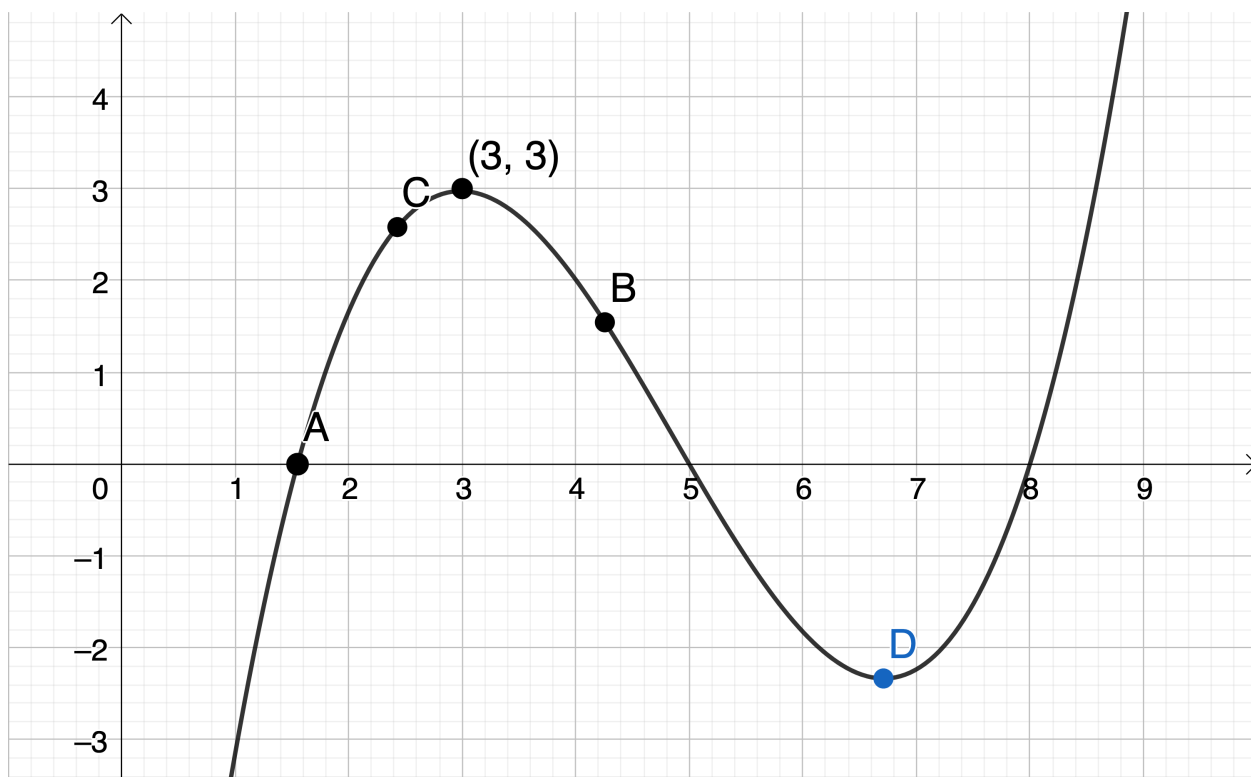


Instructions: Print your name (first and last) in the indicated space above. Solve each problem carefully and organize your work. *You must show all of your work in order to earn full credit.*

1. Let $f(x)$ be the function with graph below.



- (a) Order the points A, B, C, D in order from greatest slope of the tangent line at that point to least.
- (b) Find an equation for the tangent line at the point $(3, 3)$.

2. Let $f(x) = 6x - x^2$.

(a) Find the average rate of change of f from $x = 1$ to $x = 1.01$.

(b) Using the definition of derivative, find $f'(1)$.

(c) Use your answer to (b) to find an equation to the tangent line to the graph of f at $x = 1$.