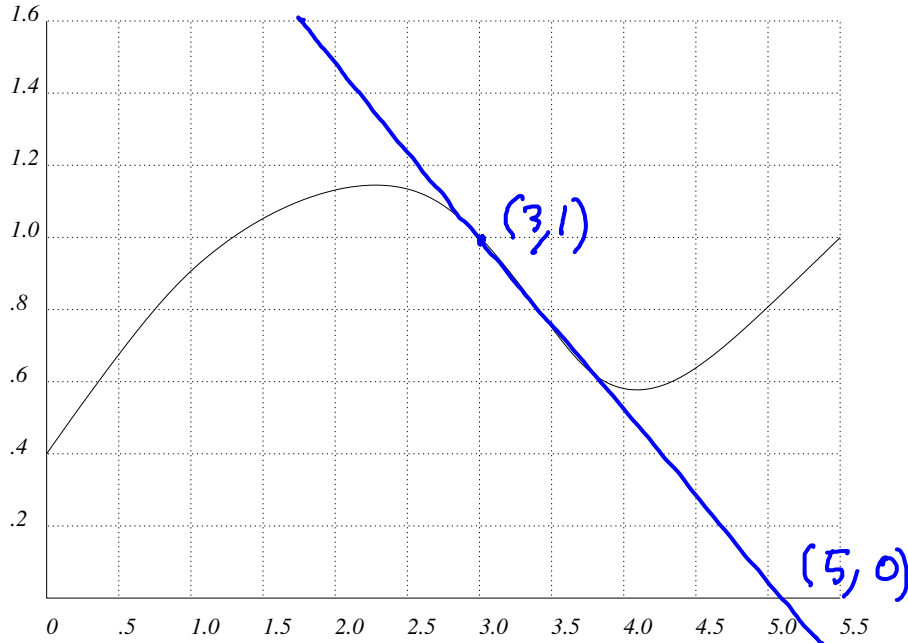


You must show your work to get full credit.

1. In the following figure



(a) Draw the tangent line at the point where $x = 3$.

(b) Estimate $f'(3)$ by choosing two points on the tangent line using them to find the slope.

$$f'(3) = \text{slope of tangent line}$$

$$= \frac{\Delta y}{\Delta x} = \frac{1-0}{3-5} = \frac{1}{-2} = -\frac{1}{2}$$

$$f'(3) \approx \underline{-\frac{1}{2} = -0.5}$$

2. The following is the graph of $y = g(x)$. Draw the graph of the derivative $y = g'(x)$ on the same axis.

