Name: _____   Date: _____

Learning Goal 4.1	The Mean Value Theorem and L'Hospital's Rule

More Questions

1. Suppose that we know $f(x)$ is continuous and differentiable on $[6, 15]$. Let's also suppose that we know $f(6) = -2$ and $f'(x) \leq 10$. What is the largest possible value for $f(15)$?

2. A car travels 180 km in 2 hours. Its speedometer must have read how fast at least once?

3. Suppose that f is a differentiable function such that $f'(x) \leq 2$ for all x. What is the largest possible value of $f(7)$ if $f(3) = 5$?

4. Let $f(x) = x^2$. Find a value $c \in (-1, 2)$ so that $f'(c)$ equals the slope between the endpoints of $f(x)$ on $[-1, 2]$.