

Quiz

Name _____

1. Draw the graph of a function $f(x)$ that satisfies $f'(x) > 0$ for $x > 2$, $f'(x) < 0$ for $x < 2$ and $f(2) = -1$.

2. Find the following derivatives:

(a) $f(x) = 4x^3 + 2x^2 - 5x + 7$
 $f'(x) =$

(b) $w = \cos(\theta) + 2\sin(\theta)$
 $\frac{dw}{d\theta} =$

(c) $h(t) = 5\sqrt{t} + \frac{4}{t^2}$
 $h'(t) =$

3. (a) Find the microscope equation for $V = s^3 + s$ at $s = 3$.

(b) Note that $V(3) = 3^3 + 3 = 27 + 3 = 30$. Estimate a solution to $s^3 + s = 29$.