

# Quiz 9

*Name:*

---

1. Optimize the function  $f(x) = 12x - 4x^2 + \frac{1}{3}x^3$  over the interval  $0 \leq x \leq 3$ .

2. Optimize the function  $f(x) = 2x\sqrt{4-x^2}$  over the interval  $0 \leq x \leq 2$ .