

Due date: _____

Name: _____

1. Find the absolute maximum and minimum values of $f(x) = x + \frac{1}{x}$ on the interval $[0.4, 2]$.

2. Find the absolute maximum and minimum values of $f(x) = 2x^{\frac{4}{3}} - x^{\frac{1}{3}}$ on the interval $[-1, 1]$.

3. Find the absolute maximum and minimum values of $f(x) = x - \ln x$ on the interval $\left[\frac{1}{2}, 2\right]$.

4. Find the absolute maximum and absolute minimum values of $f(x) = \sqrt{9 - x^2}$ on $[-3, 2]$.

5. Find the absolute maximum and minimum values of $f(x) = \frac{x}{1+x^2}$ on the interval $[0,4]$.

6. Find the absolute maximum and absolute minimum values of $f(x) = x + \cot\left(\frac{x}{2}\right)$ on $\left[\frac{\pi}{4}, \frac{7\pi}{4}\right]$.

Q: What has three feet but no legs or arms?

Optional exercises from the Stewart textbook if you'd like more practice:

4.1 (p.283) #3, 5, 47-61 odd