

MTH 132.12 Quiz 8  
Friday 25 March 2011

Name:

Show *all* your work. Points will be deducted for incomplete work. No calculators are allowed.

Let  $f(x) = x^2 + \frac{2}{x}$ .

1. What is  $f'(x)$ ?

2. What is  $f''(x)$ ?

3. Using the axes on the next page, sketch a graph of  $f(x)$  on the interval  $[-2, 2]$ . You must label all points of inflection, local extremes, and axis intercepts. Show your work below. (*Hint.*  $\sqrt[3]{2} \approx 1.25$ )

