

Worksheet 4

Name:

1. Differentiate $f(x) = (1 - x)^2$ in two ways:

(a) First expanding and then using the power rule

(b) Using the chain rule

(c) Make sure that both methods give the same answer (which is more efficient ?)

2. Suppose $f(t) = \sqrt{2e^t + t^2 - 3t}$. Find $f'(t)$.

3. (Using the Chain Rule Twice) Find $\frac{d}{dr}(2^{(3r+1)^4})$