

Homework 3

Due: 6-16-14

Write the following functions as a composition of two (or more) functions, each of which you can take the derivative of using the basic rules (constant/power/sum/difference/exponential/product/quotient). Be sure to check that your decomposition works!

1. $(x + 1)^{15}$
2. $(4x^2 + 1)^7$
3. $\sqrt{e^x + 1}$
4. $\pi^{(x+2)}$
5. $\sqrt{(x^2 5^x)^3}$
6. $\sqrt{1 + e^{\sqrt{3+x^2}}}$