

Math 1, Fall 2003
Goals for Week 10: November 24, 2003

Defining General Power Functions: You should know how to define x^a for positive values of x using the exponential function and the natural logarithmic function. You should know how to define 0^a for various values of a . Given the function x^a , you should know how to figure out when x^a is defined for negative value of x based on the value of a .

Differentiating General Power Functions: Given a power function, you should be able to find the derivative of that function where the derivative is defined. Given x^a , you should know how to determine whether or not x^a is differentiable at 0 based on the value of a . You should be able to differentiate compositions of function involving any power function using the Chain Rule, and you should be able to determine the domain of that composition.

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Lecture Notes for Week 10: Lecture 23

Homework for Week 9: Homework 19