Calculus Section 9.9 Geometric Power Series  
-Find a geometric power series that represents a function.  
-Construct a power series using series operations.

Homework: page 662 #’s 5, 7, 9, 11, 12, 35, 36

The final type of series involves functions written in the form: . These series resemble the sum of a Geometric series: . We can infer that the power series expansion of

**Examples) Find a Power Series and Interval of Convergence for Each Function**c = 0 c = 2

, c = 1

Find the power series representation of the Find the power series representation for   
function . f(x) = arctan(x).