

Worksheet #11

Find the power series representation for $f(x)$ and specify the radius of convergence.

(1) $\arctan x = \int \frac{1}{1+x^2} dx$

(2) $f(x) = \frac{x^2}{1-x^4}$

(3) $f(x) = \ln(x^2 + 4)$

(4) $f(x) = \frac{1+x}{(1-x)^2}$