Power Series Theorems Practice

Express each function as a power series and determine the interval of convergence.

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

2.
$$g(x) = \frac{1}{2} \ln(x^2 + 1)$$

3.
$$h(x) = \tan^{-1}(4x)$$