9.2 Taylor/Maclaurin Series

Common Maclaurin Series

\[ e^x = \]

\[ \sin x = \]

\[ \cos x = \]

\[ \frac{1}{1-x} = \]

\[ \frac{1}{1+x} = \]

\[ \ln(1 + x) = \]

\[ \tan^{-1} x = \]
Examples:
Write the first three non-zero terms and the general term of the Maclaurin series generated by the function.
1) \( f(x) = \cos x^2 \)

2) \( g(x) = x^2 e^x \)

3) \( h(x) = \ln(1 + 3x) \)

4) \( w(x) = \frac{x}{1-2x} \)

5) \( m(x) = x \sin x \)