

DATE: _____

Maclaurin Series

Common Maclaurin Series (that you must memorize)

$$e^x =$$

$$\sin x =$$

$$\cos x =$$

$$\frac{1}{1-x} =$$

$$\frac{1}{1+x} =$$

$$\ln(1+x) =$$

$$\tan^{-1} x =$$

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) $m(x) = x \sin x$