

**Goal:** Know and love each of these functions, their Taylor series representations, and the interval of convergence.

1.  $e^x =$

2.  $\sin(x) =$

3.  $\cos(x) =$

4.  $\arctan(x) =$

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

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

7.  $(1+x)^k =$