

Exponential.

Exponential functions are functions of the base of natural logarithms  $e$ .

Exponential Growth shows the steep rise of the basic function  $f(x) = \exp(x)$ .

Exponential Decay shows the way a value decays asymptotically towards zero from a starting value. Both of these occur in almost every aspect of engineering and physics.

Catenary or hyperbolic cosine is an exponential function which describes the shape of a string or chain suspended between two supports, for example a suspension bridge.

Hyperbolic sine ( $\sinh$ ) is an exponential function similar to its trigonometric counterpart.