

The Exponential Function, Base 2

$$y = \exp_2(x)$$

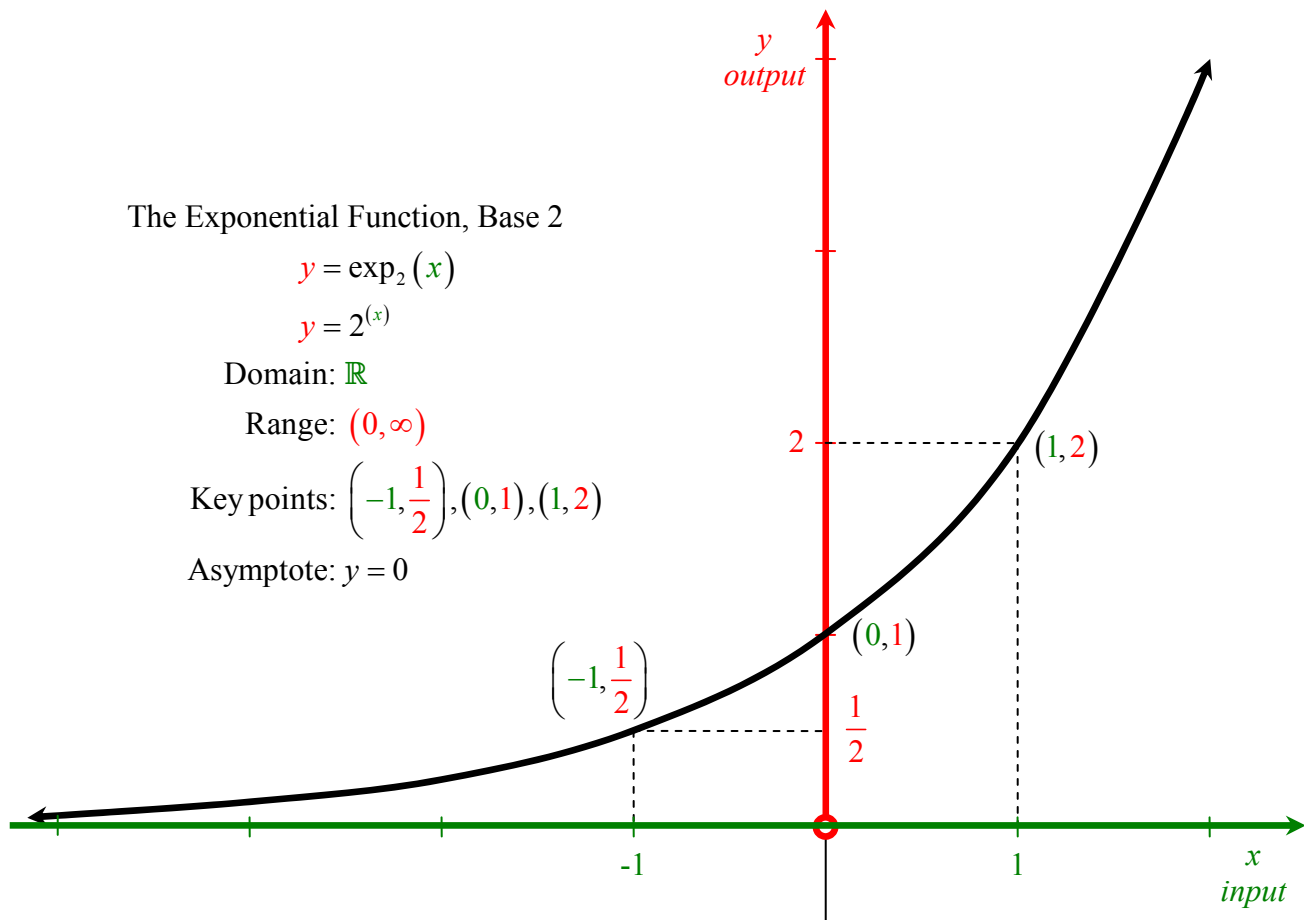
$$y = 2^{(x)}$$

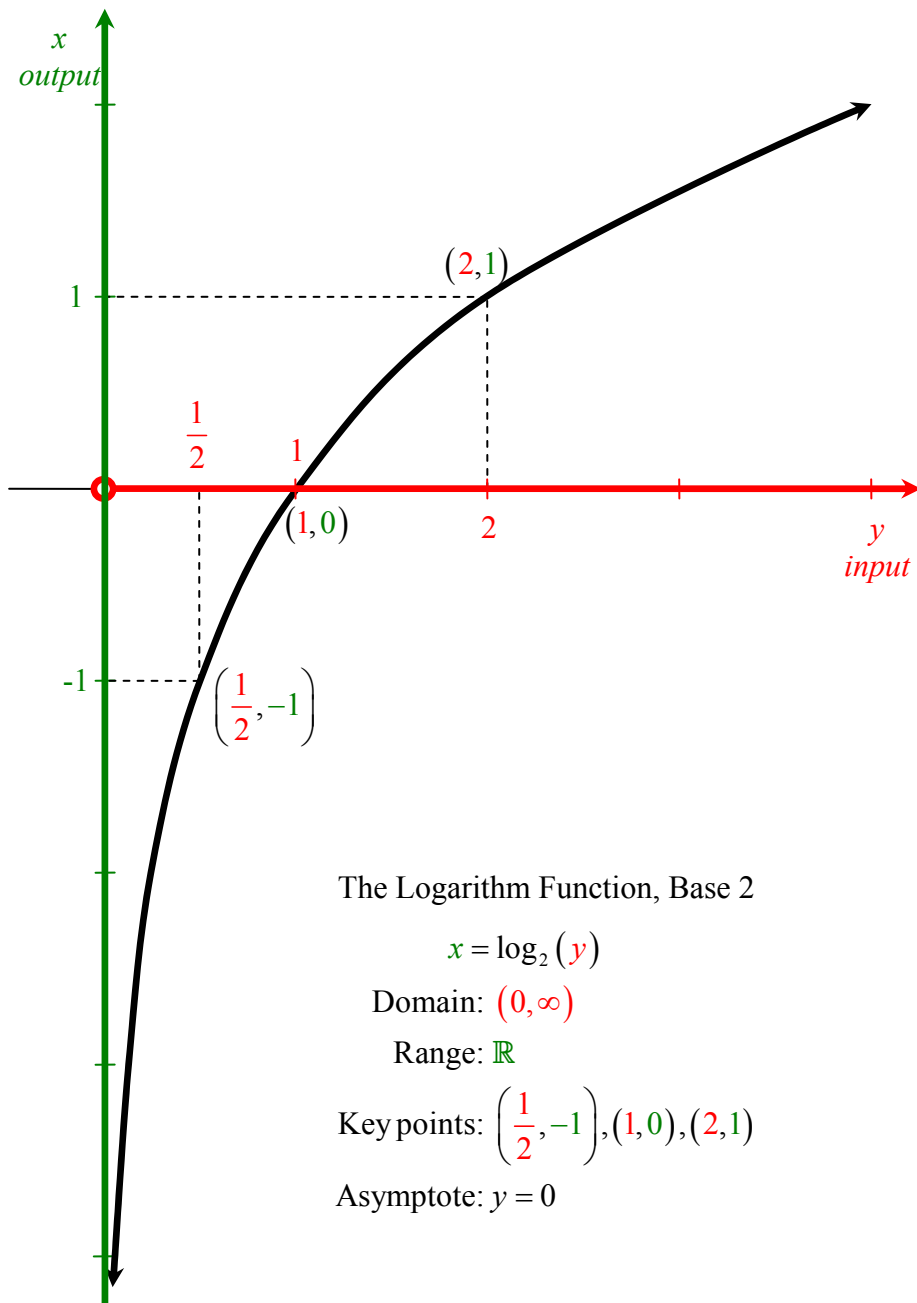
Domain: \mathbb{R}

Range: $(0, \infty)$

Key points: $\left(-1, \frac{1}{2}\right), (0, 1), (1, 2)$

Asymptote: $y = 0$





The Logarithm Function, Base 2

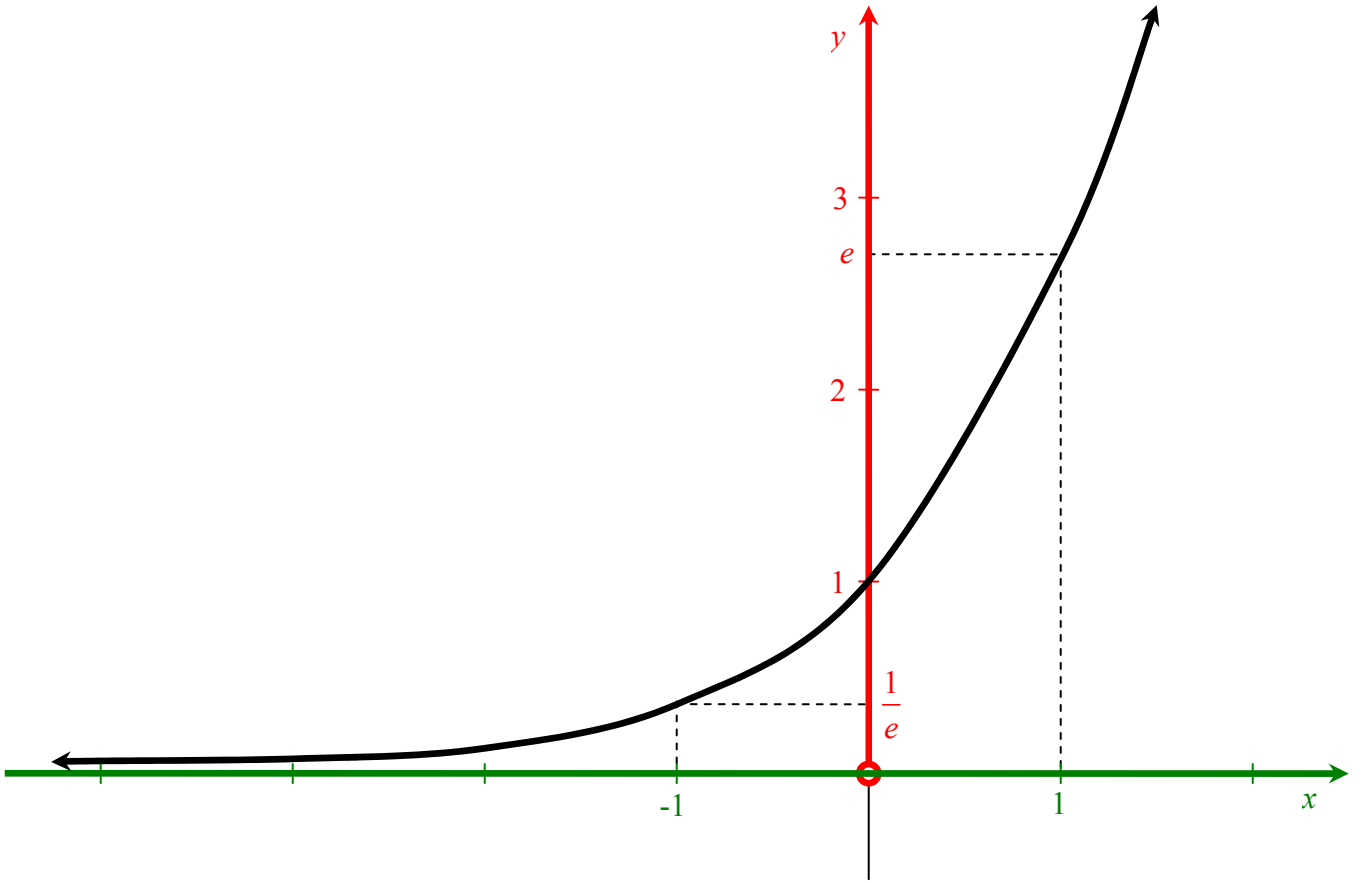
$$x = \log_2(y)$$

Domain: $(0, \infty)$

Range: \mathbb{R}

Key points: $(\frac{1}{2}, -1), (1, 0), (2, 1)$

Asymptote: $y = 0$



The Exponential Function, Base e
(The “Natural Exponential Function”)

$$y = \log_e(x)$$

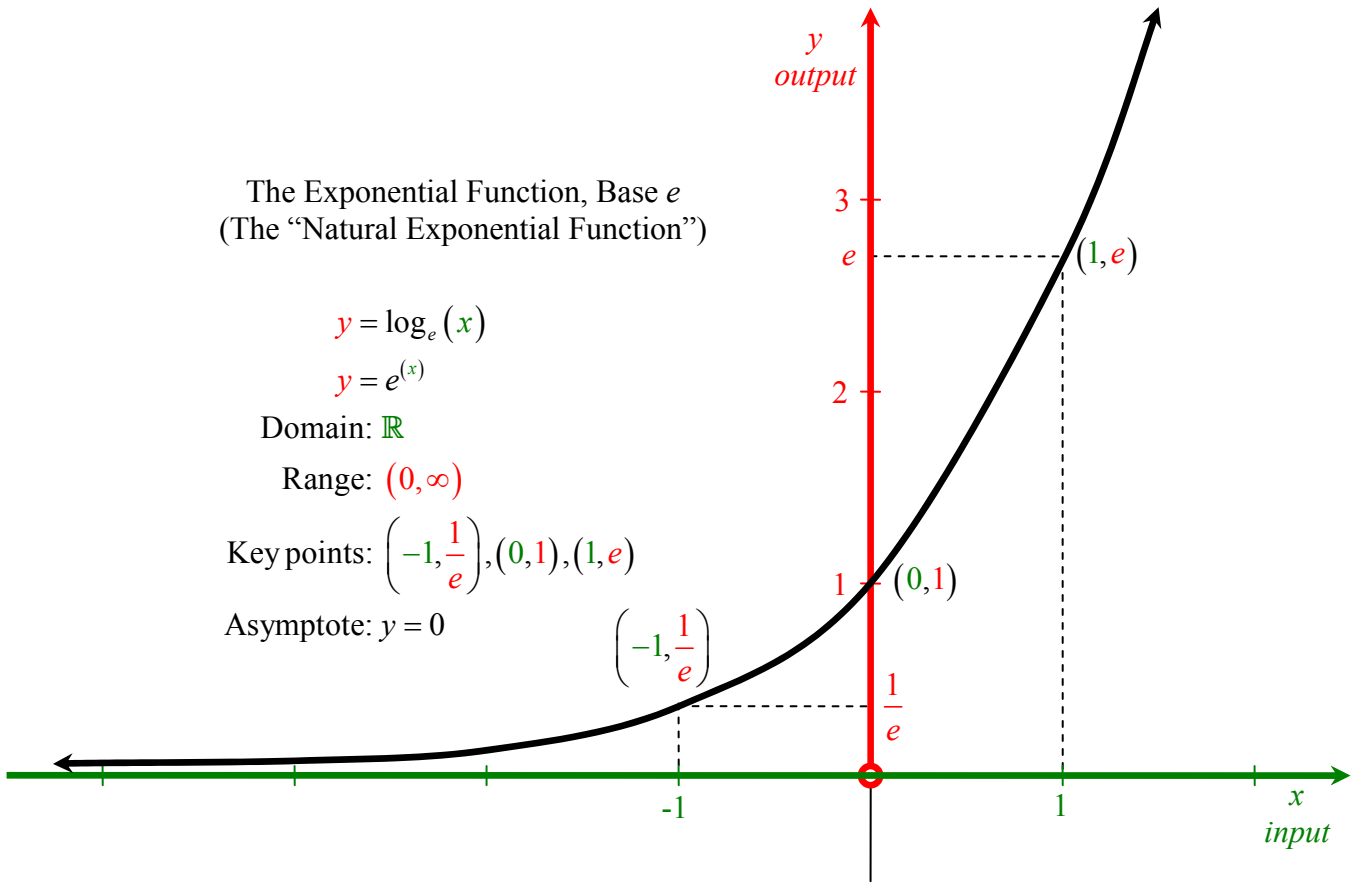
$$y = e^{(x)}$$

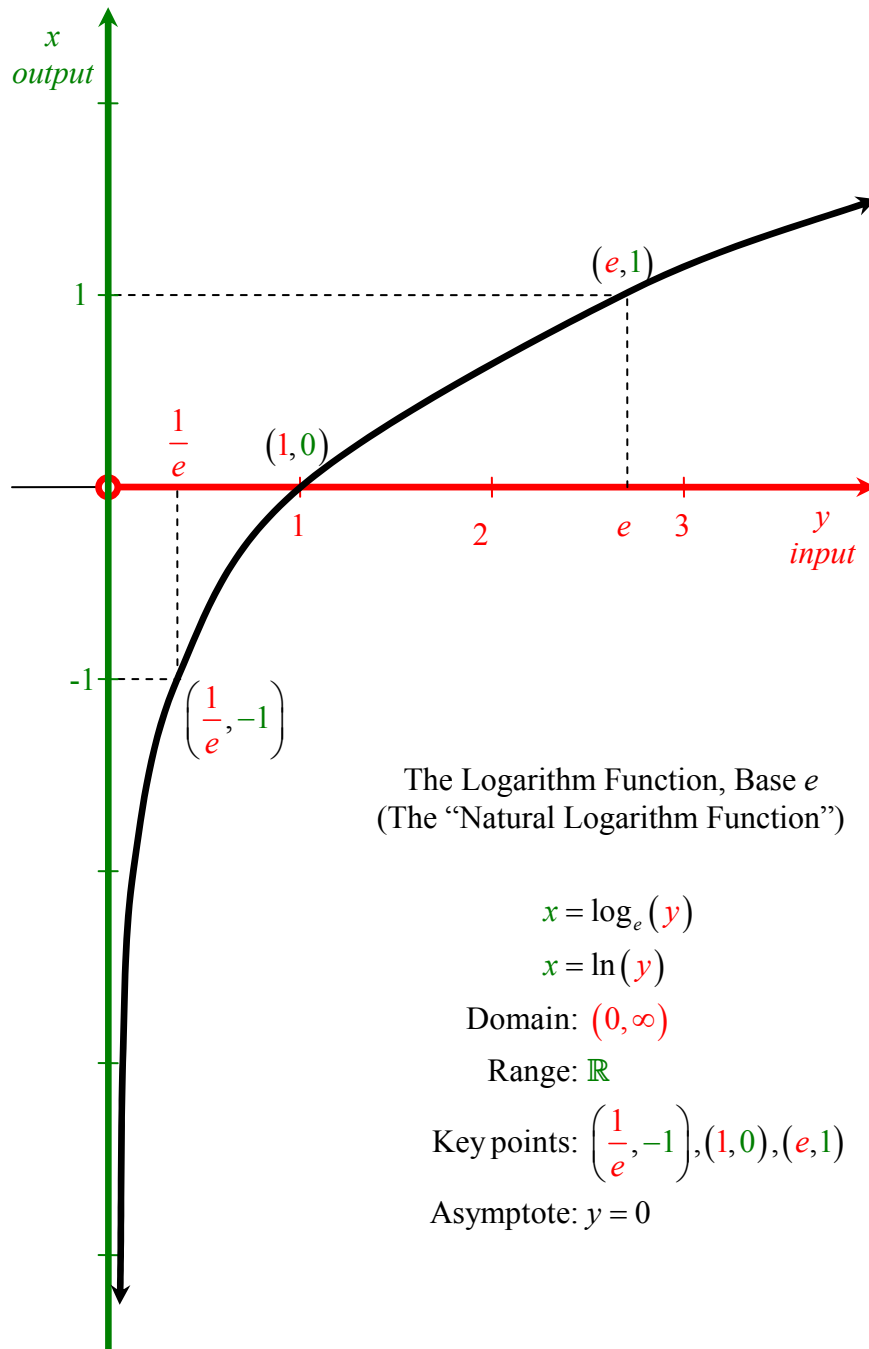
Domain: \mathbb{R}

Range: $(0, \infty)$

Key points: $\left(-1, \frac{1}{e}\right), (0, 1), (1, e)$

Asymptote: $y = 0$





The Logarithm Function, Base e
 (The “Natural Logarithm Function”)

$$x = \log_e(y)$$

$$x = \ln(y)$$

Domain: $(0, \infty)$

Range: \mathbb{R}

Key points: $(\frac{1}{e}, -1), (1, 0), (e, 1)$

Asymptote: $y = 0$