

## Reiknireglur logra

Náttúrlegur logri (grunntala e)

$$\ln(xy) = \ln(x) + \ln(y)$$

$$\ln\left(\frac{x}{y}\right) = \ln(x) - \ln(y)$$

$$\ln(x^n) = n \ln(x)$$

Logri með grunntölu a

$$\log_a(xy) = \log_a(x) + \log_a(y)$$

$$\log_a\left(\frac{x}{y}\right) = \log_a(x) - \log_a(y)$$

$$\log_a(x^n) = n \log_a(x)$$

Umskrift logra með grunntölu a yfir í náttúrulegan logra:

$$\log_a(x) = \frac{\ln(x)}{\ln(a)}$$

Gildi á logrum:

$$\ln(1) = 0$$

$$\ln(e) = 1$$

$$\log_{10}(1) = 0$$

$$\log_{10}(10) = 1$$

$$\log_a(1) = 0$$

$$\log_a(a) = 1$$