

Normal L^AT_EX equation (it will look nice, but not always make sense)

$$V = \int \int f(x, y, z) z dA(x, y) \quad (0.1)$$

Equations with numbering

$$r^2 = \frac{y^2}{b^2} + \frac{x^2}{a^2} \quad (0.2a)$$

$$x = a r \cos \vartheta \quad (0.2b)$$

$$y = b r \sin \vartheta \quad (0.2c)$$

This is a derivative with maxima code: $\frac{d}{dx} f(x)$

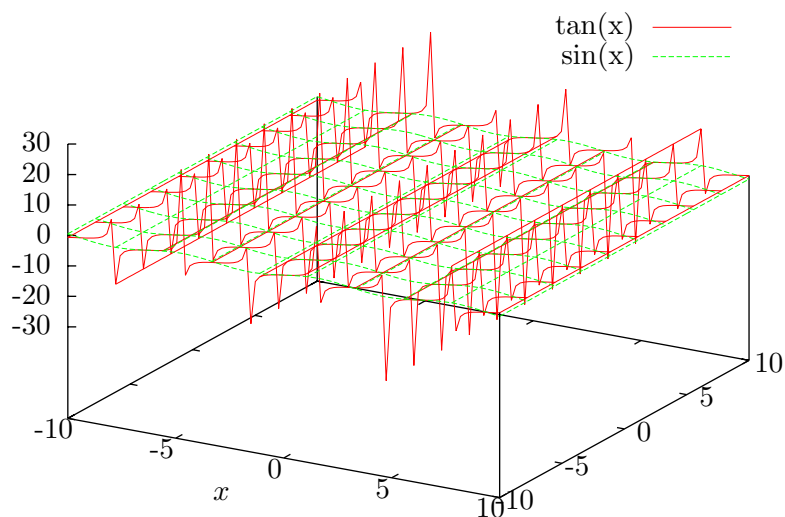


Figure 1: Caption

The figure depicted in [Figure 1](#) is made with Gnuplot
 Aligned equations are also valid [Equation \(0.3b\)](#)

$$g(x) = \frac{x}{x^3 - 3x + 2} \quad (0.3a)$$

$$\begin{aligned} \int g(x) dx &= \int \frac{x}{x^3 - 3x + 2} dx \\ &= -\frac{2 \log(x + 2)}{9} + \frac{2 \log(x - 1)}{9} - \frac{1}{3x - 3} \end{aligned} \quad (0.3b)$$

3D gnuplot demo - contour plot

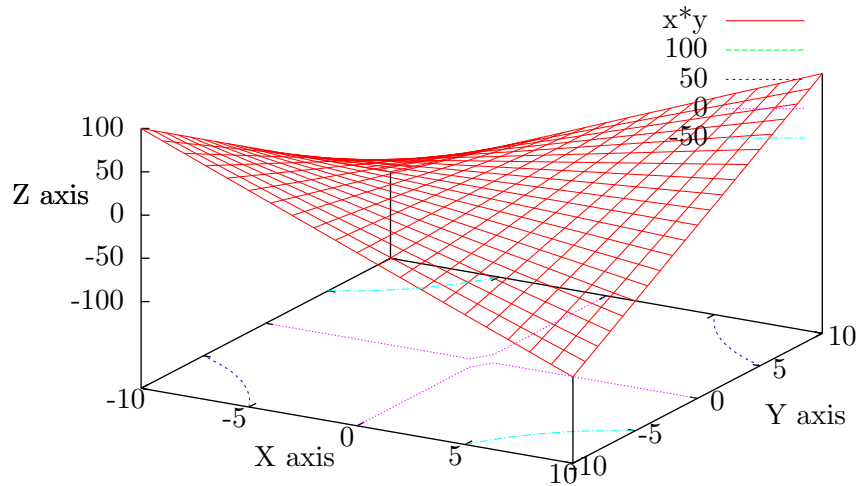
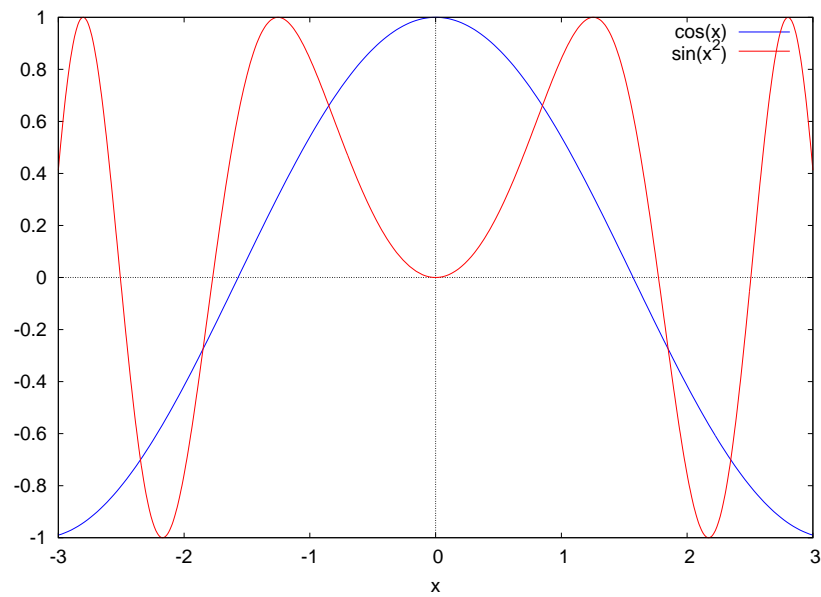


Figure 2: My Caption



An equation goes here, and a 2D figure goes above

$$\int \frac{x}{x^3 - 3x + 2} dx = -\frac{2 \log(x + 2)}{9} + \frac{2 \log(x - 1)}{9} - \frac{1}{3x - 3} + K$$

If you don't see a 2D plot above, run latex again (you will always need two runs for MAXIMACMD and MAXIMA commands, but not for MAXIEQ). The last figure