1.2   Notations

- functions: $f(x)$, $f(x, y, z)$; x, y, z are variables

- derivatives: $f'(x) = \frac{df(x)}{dx}$

- e.g. $f(x) = x^2 + a$; a: parameter

- trigonometric functions: $\sin x$, $\cos x$, $\tan x$:
  argument always in radians: $rad = deg * \frac{\pi}{180}$

- $\sin x$ (no parenthesis necessary), $\sin(\pi x)$, $\sin(\pi x + 7)$
  and $\sin^2 x = (\sin x)^2$, $\cos^n x = (\cos x)^n$

- vectors: $\vec{a} = \begin{pmatrix} a_1 \\ a_2 \\ a_3 \end{pmatrix}$, $a = |\vec{a}|$

  $\vec{a} \cdot \vec{b} = \vec{a}\,\vec{b}$: Scalar product
  $\vec{a} \times \vec{b}$: Vector product