

Laplace Transform Table

$$f(t) = t^n \quad \Rightarrow \quad F(s) = \frac{n!}{s^{n+1}}$$

$$f(t) = e^{at} \quad \Rightarrow \quad F(s) = \frac{1}{s-a}$$

$$f(t) = \cos(kt) \quad \Rightarrow \quad F(s) = \frac{s}{s^2 + k^2}$$

$$f(t) = \sin(kt) \quad \Rightarrow \quad F(s) = \frac{k}{s^2 + k^2}$$

$$f(t) = \cosh(kt) \quad \Rightarrow \quad F(s) = \frac{s}{s^2 - k^2}$$

$$f(t) = \sinh(kt) \quad \Rightarrow \quad F(s) = \frac{k}{s^2 - k^2}$$

$$f(t) = u(t-a) \quad \Rightarrow \quad F(s) = \frac{e^{-as}}{s}$$

$$f(t) = \delta(t-a) \quad \Rightarrow \quad F(s) = e^{-as}$$