Departamento de Matemática - Universidade de Coimbra
Tabela de Transformadas de Laplace

	Função	Transformada de Laplace	Domínio
1.	k, constante	$\frac{k}{s}$	$s > 0$
2.	$t^n,\ n = 1, 2, 3, \ldots$	$\frac{n!}{s^{n+1}}$	$s > 0$
3.	$t^{-1/2}$	$\sqrt{\frac{\pi}{s}}$	$s > 0$
4.	$e^{k\,t}$	$\frac{1}{s-k}$	$s > k$
5.	$\sin kt$	$\frac{k}{s^2+k^2}$	$s > 0$
6.	$\cos kt$	$\frac{s}{s^2+k^2}$	$s > 0$
7.	$\sinh\ kt$	$\frac{k}{s^2-k^2}$	$s > \lvert k\rvert$
8.	$\cosh\ kt$	$\frac{s}{s^2-k^2}$	$s > \lvert k\rvert$
9.	$e^{k\,t} f(t)$	$F(s-k)$	$s - k \in D_F$
10.	$f(t-a)\,u_a(t)$	$e^{-as}F(s)$	$s \in D_F$
11.	$t^n f(t),\ n = 1, 2, 3, \ldots$	$(-1)^n\ \frac{d^n F(s)}{ds^n}$	
12.	$f^{(n)}(t),\ n = 1, 2, 3, \ldots$	$s^n F(s) - s^{n-1} f(0) - s^{n-2} f'(0) - \ldots - f^{(n-1)}(0)$	$s \in D_F$
13.	$\int_0^t f(\tau) g(t-\tau) d\tau$	$F(s)G(s)$	$s \in D_F \cap D_G$
14.	$\int_0^t f(\tau) d\tau$	$\frac{F(s)}{s}$	$s \in D_F \cap]0, +\infty[$
15.	$f(kt),\ k \in \mathbb{R}^+$	$\frac{1}{k}\ F(\frac{s}{k})$	$\frac{s}{k} \in D_F$

Observação : $F(s)$ designa a Transformada de Laplace da função $f(t)$, D_F designa o domínio de F e $u_a(t)$ representa a função de Heaviside.