$f(x)$	$\mathcal{L}(f)(s)$
δ_0	1
1	$\frac{1}{s}$
x	$\frac{1}{s^2}$
x^n	$\frac{n!}{s^{n+1}}$
e^{ax}	$\frac{1}{s-a}$
xe^{ax}	$\frac{1}{(s-a)^2}$
$x^n e^{ax}$	$\frac{n!}{(s-a)^{n+1}}$
$\sin(ax)$	$\frac{a}{s^2+a^2}$
$\cos(ax)$	$\frac{s}{s^2+a^2}$
$x\sin(ax)$	$\frac{2as}{(s^2+a^2)^2}$
$x\cos(ax)$	$\frac{s^2-a^2}{(s^2+a^2)^2}$
$e^{ax}\sin(bx)$	$\frac{b}{(s-a)^2+b^2}$
$e^{ax}\cos(bx)$	$\frac{s-a}{(s-a)^2+b^2}$
$\operatorname{sh}(ax)$	$\frac{a}{s^2-a^2}$
$\operatorname{ch}(ax)$	$\frac{s}{s^2-a^2}$
$\mathrm{H}_a(x)$	$\frac{e^{-as}}{s}$

Svojstva konvolucije:

1) $f_1 * (f_2 * f_3) = (f_1 * f_2) * f_3$
2) $f_1 * f_2 = f_2 * f_1$

$$\mathcal{L}(f)(s) := \int_0^\infty e^{-sx} f(x)\,\mathrm{d}x$$

Svojstva Laplaceove transformacije:

1) $\mathcal{L}(\alpha f + \beta g) = \alpha\mathcal{L}(f) + \beta\mathcal{L}(g)$
2) $\mathcal{L}(f')(s) = s\mathcal{L}(f)(s) - f(0)$
3) $\mathcal{L}(f^{(n)})(s) = s^n\mathcal{L}(f)(s) - \sum_{k=0}^{n-1} s^{n-1-k} f^{(k)}(0)$
4) $\mathcal{L}(\, e^{ax} f(x)\,)(s) = \mathcal{L}(f)(s-a)$
5) $\mathcal{L}(\, x^n f(x)\,)(s) = (-1)^n \big(\mathcal{L}(f)\big)^{(n)}(s)$
6) $\mathcal{L}f(ax)(s) = \frac{1}{a}\mathcal{L}(f)(\frac{s}{a})$
7) $\mathcal{L}\left(\, f(x-a)\,\mathrm{H}_a(x)\,\right)(s) = e^{-as}\mathcal{L}(f)(s)$
8) $\mathcal{L}f_1(s)\mathcal{L}f_2(s) = \mathcal{L}(f_1 * f_2)(s)$

Tablica integrala:

$$\int x^\alpha\,\mathrm{d}x = \frac{x^{\alpha+1}}{\alpha+1} + C \quad (\alpha \neq -1)$$

$$\int \frac{\mathrm{d}x}{x} = \ln|x| + C$$

$$\int e^x\,\mathrm{d}x = e^x + C$$

$$\int a^x\,\mathrm{d}x = \frac{a^x}{\ln a} + C \quad (a > 0, a \neq 1)$$

$$\int \cos x\,\mathrm{d}x = \sin x + C$$

$$\int \sin x\,\mathrm{d}x = -\cos x + C$$

$$\int \frac{1}{\sqrt{a^2-x^2}}\,\mathrm{d}x = \arcsin\frac{x}{a} + C \ \ (a > 0)$$

$$\int \frac{1}{a^2+x^2}\,\mathrm{d}x = \frac{1}{a}\operatorname{arctg}\frac{x}{a} + C \ \ (a > 0)$$

$$\int \sqrt{a^2+x^2}\,\mathrm{d}x = \ln\left(x + \sqrt{a^2+x^2}\right) + C \ \ (a > 0)$$

$$\int \frac{1}{\sqrt{x^2-a^2}}\,\mathrm{d}x = \ln\left|x + \sqrt{x^2-a^2}\right| + C \ \ (a > 0)$$

$$\int \frac{1}{a^2-x^2}\,\mathrm{d}x = \frac{1}{2a}\ln\left|\frac{x+a}{x-a}\right| + C \quad (a > 0)$$

$$\int \frac{1}{\cos^2 x}\,\mathrm{d}x = \operatorname{tg} x + C$$

$$\int \frac{1}{\sin^2 x}\,\mathrm{d}x = -\operatorname{ctg} x + C$$

$$\int \operatorname{ch} x\,\mathrm{d}x = \operatorname{sh} x + C$$

$$\int \operatorname{sh} x\,\mathrm{d}x = \operatorname{ch} x + C$$

$$\int \frac{1}{\operatorname{ch}^2 x}\,\mathrm{d}x = \operatorname{th} x + C \qquad \int \frac{1}{\operatorname{sh}^2 x}\,\mathrm{d}x = \operatorname{cth} x + C$$

$f(x)$	$\mathcal{F}(f)(\xi)$
δ_0	1
$\chi_{[a,b]}$	$\frac{\sin(\pi(b-a)\xi)}{\pi\xi}e^{-i\pi(a+b)\xi}$
$e^{-ax}\,\mathrm{H}(x),\ \mathrm{Re}(a)>0$	$\frac{1}{a+2\pi i\xi}$
$\frac{x^k}{k!}e^{-ax}\,\mathrm{H}(x),\ \mathrm{Re}(a)>0$	$\frac{1}{(a+2\pi i\xi)^k}$
$e^{-a\lvert x\rvert},\ \mathrm{Re}(a)>0$	$\frac{2a}{a^2+4\pi^2\xi^2}$
$e^{-ax^2},\quad a>0$	$\sqrt{\frac{\pi}{a}}e^{-\frac{\pi^2}{a}\xi^2}$
$\cos(ax)$	$\left(\delta_{\left\{\frac{a}{2\pi}\right\}}+\delta_{\left\{-\frac{a}{2\pi}\right\}}\right)/2$
$\sin(ax)$	$\left(\delta_{\left\{\frac{a}{2\pi}\right\}}-\delta_{\left\{-\frac{a}{2\pi}\right\}}\right)/(2i)$
$\cos(ax^2)$	$\sqrt{\frac{\pi}{a}}\cos\left(\frac{\pi^2\xi^2}{a}-\frac{\pi}{4}\right)$
$\sin(ax^2)$	$-\sqrt{\frac{\pi}{a}}\sin\left(\frac{\pi^2\xi^2}{a}-\frac{\pi}{4}\right)$
v.p. $\frac{1}{x}$	$-i\pi\mathrm{sgn}(\xi)$
e^{-ix^2}	$\sqrt{2\pi}(1/2-i/2)e^{i\pi^2\xi^2}$
$e^{-ax^2},\ \mathrm{Re}(a)\geq 0$	$\sqrt{\frac{\pi}{\lvert a\rvert}}e^{-i\frac{\theta_0}{2}}e^{-\frac{\pi^2\xi^2}{a}},\ \theta_0=\mathrm{arctg}(\mathrm{Im}(a)/\,\mathrm{Re}(a))$

Svojstva Fourierove transformacije:

- $\mathcal{F}(\alpha f+\beta g)=\alpha\mathcal{F}(f)+\beta\mathcal{F}(g)$
- $\mathcal{F}(\tau_a f)(\xi)=e^{-2\pi i a\xi}\mathcal{F}(f)(\xi)$
- $\mathcal{F}(f(ax))(\xi)=\frac{1}{|a|}\mathcal{F}\left(\frac{\xi}{a}\right)$
- $\mathcal{F}(\mathcal{F}(f))(\xi)=f(-\xi)$
- $\mathcal{F}\left(f^{(n)}\right)(\xi)=(2\pi i\xi)^n\mathcal{F}(f)(\xi)$
- $\mathcal{F}\left(x^n f(x)\right)(\xi)=\left(\frac{i}{2\pi}\right)^n\mathcal{F}(f)^{(n)}(\xi)$
- $\mathcal{F}(f*g)(\xi)=\mathcal{F}(f)\mathcal{F}(g)$