

**Таблица оригиналов и изображений**

№	$f(t)$	$F(p)$	№	$f(t)$	$F(p)$
1	$\eta(t)$	$\frac{1}{p}$	13	$t^{n-1} e^{\alpha t}$	$\frac{(n-1)!}{(p-\alpha)^n}$
2	$t^n$	$\frac{n!}{p^{n+1}}$	14	$\cos^2 \beta t$	$\frac{p^2 + 2\beta^2}{p(p^2 + 4\beta^2)}$
3	$e^{\alpha t}$	$\frac{1}{p-\alpha}$	15	$\sin^2 \beta t$	$\frac{2\beta^2}{p(p^2 + 4\beta^2)}$
4	$\cos \beta t$	$\frac{p}{p^2 + \beta^2}$	16	$\frac{1}{\alpha} (e^{\alpha t} - 1)$	$\frac{1}{p(p-\alpha)}$
5	$\sin \beta t$	$\frac{\beta}{p^2 + \beta^2}$	17	$1 - e^{-\frac{t}{\alpha}}$	$\frac{1}{p(1+\alpha p)}$
6	$ch \beta t$	$\frac{p}{p^2 - \beta^2}$	18	$\sqrt{t}$	$\frac{\sqrt{\pi}}{2p\sqrt{p}}$
7	$sh \beta t$	$\frac{\beta}{p^2 - \beta^2}$	19	$\frac{e^{\alpha t}}{\sqrt{t}}$	$\frac{\sqrt{\pi}}{\sqrt{p-\alpha}}$
8	$\frac{1}{\sqrt{t}}$	$\frac{\sqrt{\pi}}{\sqrt{p}}$	20	$-\ln t - C$	$\frac{\ln p}{p}$
9	$e^{\alpha t} \cos \beta t$	$\frac{p-\alpha}{(p-\alpha)^2 + \beta^2}$	21	$\frac{\ln t}{\sqrt{t}}$	$-\sqrt{\frac{\pi}{p}} \cdot (\ln 4p + C)$
10	$e^{\alpha t} \sin \beta t$	$\frac{\beta}{(p-\alpha)^2 + \beta^2}$	22	$\frac{e^{\beta t} - e^{\alpha t}}{t}$	$\ln \left  \frac{p-\alpha}{p-\beta} \right $
11	$e^{\alpha t} ch \beta t$	$\frac{p-\alpha}{(p-\alpha)^2 - \beta^2}$	23	$\frac{\sin \alpha t}{t}$	$arctg \frac{\alpha}{p}$
12	$e^{\alpha t} sh \beta t$	$\frac{\beta}{(p-\alpha)^2 - \beta^2}$	24	$\frac{sh \alpha t}{t}$	$\frac{1}{2} \ln \left  \frac{p+\alpha}{p-\alpha} \right $