1. Tabla: Transformada de Laplace

1. $\mathcal{L}\{f(t)=1\}=F(s)=\dfrac{1}{s}\,, \qquad s>0$
2. $\mathcal{L}\{f(t)=e^{at}\}=F(s)=\dfrac{1}{s-a}\,, \qquad s>a$
3. $\mathcal{L}\{f(t)=t^n\}=F(s)=\dfrac{n!}{s^{n+1}}\,, \qquad s>0\,;\, n=1,2,3,\cdots$
4. $\mathcal{L}\{f(t)=\mathrm{sen}(at)\}=F(s)=\dfrac{a}{s^2+a^2}\,, \qquad s>0$
5. $\mathcal{L}\{f(t)=\cos(at)\}=F(s)=\dfrac{s}{s^2+a^2}\,, \qquad s>0$
6. $\mathcal{L}\{f(t)=e^{at}\,\mathrm{sen}(bt)\}=F(s)=\dfrac{b}{(s-a)^2+b^2}\,, \qquad s>a$
7. $\mathcal{L}\{f(t)=e^{at}\cos(bt)\}=F(s)=\dfrac{s-a}{(s-a)^2+b^2}\,, \qquad s>a$
8. $\mathcal{L}\{f(t)=t^n e^{at}\}=F(s)=\dfrac{n!}{(s-a)^{n+1}}\,, \qquad s>a\,;\, n=1,2,3,\cdots$
9. $\mathcal{L}\{f(t)=\mathrm{senh}(at)\}=F(s)=\dfrac{a}{s^2-a^2}\,, \qquad s>|a|$
10. $\mathcal{L}\{f(t)=\cosh(at)\}=F(s)=\dfrac{s}{s^2-a^2}\,, \qquad s>|a|$
11. $\mathcal{L}\{\,(f*g)(t)=\displaystyle\int_0^t f(t-\alpha)g(\alpha)\mathrm{d}\alpha\}=\int_0^t f(\alpha)g(t-\alpha)\mathrm{d}\alpha\,\}=\mathcal{L}\{f(t)\}\mathcal{L}\{g(t)\}$
12. $\mathcal{L}\{f^{(n}(t)\}=s^nF(s)-s^{n-1}f(0)-s^{(n-2)}f'(0)-\cdots-f^{(n-1}(0)\,; \quad F(s)=\mathcal{L}\{f(t)\}$