(1) $\mathcal{L}\{1] = 1/s; \quad s > 0.$

(2) $\mathcal{L}[e^{at}] = \dfrac{1}{s-a}; \quad s > a.$

(3) $\mathcal{L}[t^n] = \dfrac{n!}{s^{n+1}}; \quad s > 0.$

(4) $\mathcal{L}[sin(bt)] = \dfrac{b}{s^2+b^2}; \quad s > 0.$

(5) $\mathcal{L}[cos(bt)] = \dfrac{s}{s^2+b^2}; \quad s > 0.$

(6) $\mathcal{L}[cosh(bt)] = \dfrac{s}{s^2-b^2}; \quad s > b.$

(7) $\mathcal{L}[sinh(bt)] = \dfrac{b}{s^2-b^2}; \quad s > b.$

(8) $\mathcal{L}[e^{at}f(t)](s) = \mathcal{L}[f](s-a).$

(9) $\mathcal{L}[e^{at}sin(bt)] = \dfrac{b}{(s-a)^2+b^2}; \quad s > a.$

(10) $\mathcal{L}[e^{at}cos(bt)] = \dfrac{s-a}{(s-a)^2+b^2}; \quad s > a.$

(11) $\mathcal{L}[e^{at}t^n] = \dfrac{n!}{(s-a)^{n+1}}; \quad s > a.$

(12) $\mathcal{L}[u(t-a)] = \dfrac{e^{-as}}{s}.$

(13) $\mathcal{L}[u(t-a)f(t-a)](s) = e^{-as}\mathcal{L}[f(t)](s).$

(14) $\mathcal{L}[u(t-a)f(t)](s) = e^{-as}\mathcal{L}[f(t+a)](s).$

(15) $\mathcal{L}[f(ct)] = \frac{1}{c}\mathcal{L}[f(\frac{t}{c})].$

(16) $\mathcal{L}[f \star g](s) = \mathcal{L}[\int_0^t f(t-\tau)g(\tau)d\tau)] = \mathcal{L}[f]\mathcal{L}[g].$

(17) $\mathcal{L}[\delta(t-a)] = e^{-as}.$

(18) $\mathcal{L}[f^{(n)}] = s^n\mathcal{L}[f] - s^{n-1}f(0) - ... - sf^{(n-2)}(0) - f^{(n-1)}(0).$

(19) $\mathcal{L}[y''] = s^2\mathcal{L}[y] - sy(0) - y'(0).$ $\mathcal{L}[y'] = s\mathcal{L}[y] - y(0).$

(20) $\mathcal{L}[(-t)^n f(t)] = \dfrac{d^n}{ds^n}(\mathcal{L}[f]).$

(21) $\mathcal{L}[t\sin(bt)] = \dfrac{2bs}{(s^2+b^2)^2}; \quad s > 0.$

(22) $\mathcal{L}[t\cos(bt)] = \dfrac{s^2-b^2}{(s^2+b^2)^2}; \quad s > 0.$

(23) If f is periodic of period T, then $\mathcal{L}[f](s) = \dfrac{1}{1-e^{-sT}}\int_0^T e^{-st}f(t)dt.$