The following table of Laplace transforms may be used without proof.

$f(t)$		$F(s) = \mathcal{L}\{f(t)\}$
$t^n \quad (n = 0, 1, 2, \ldots)$	$\leftrightarrow$	$\dfrac{n!}{s^{n+1}}$
e^{at}	$\leftrightarrow$	$\dfrac{1}{s-a}$
$\sin at$	$\leftrightarrow$	$\dfrac{a}{s^2+a^2}$
$\cos at$	$\leftrightarrow$	$\dfrac{s}{s^2+a^2}$
$h(t-a)$	$\leftrightarrow$	$\dfrac{e^{-as}}{s}$
$\delta(t-a)$	$\leftrightarrow$	e^{-as}
$e^{at}f(t)$	$\leftrightarrow$	$F(s-a)$
$f(t)h(t-a)$	$\rightarrow$	$e^{-as}\mathcal{L}\{f(t+a)\}$
$f(t-a)h(t-a)$	$\leftarrow$	$e^{-as}F(s)$
$p-$ periodic $f(t)$	$\rightarrow$	$\dfrac{1}{1-e^{-ps}}\displaystyle\int_0^p e^{-st}f(t)\,dt$
$\displaystyle\int_0^t f(u)g(t-u)\,du$	$\leftarrow$	$F(s)G(s)$
$f'(t)$	$\rightarrow$	$sF(s) - f(0)$
$f''(t)$	$\rightarrow$	$s^2F(s) - sf(0) - f'(0)$