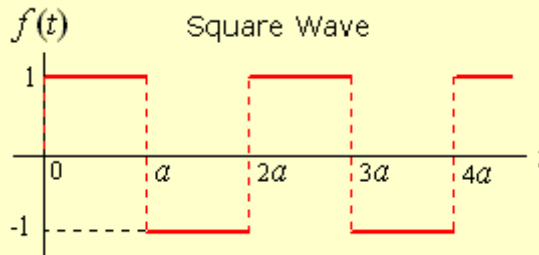
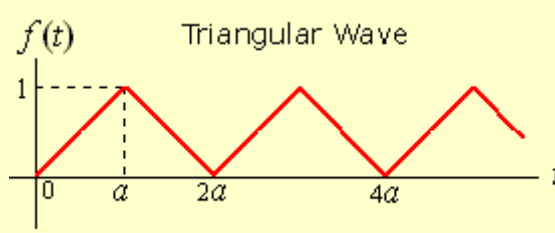
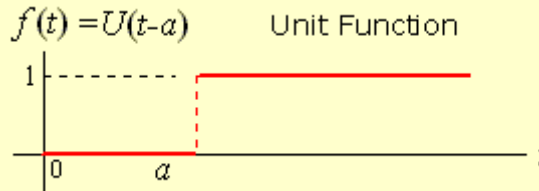
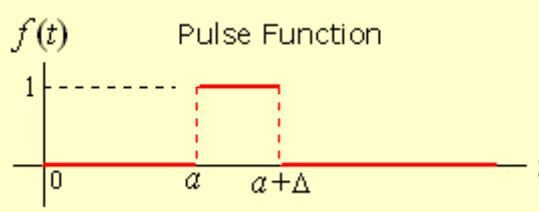
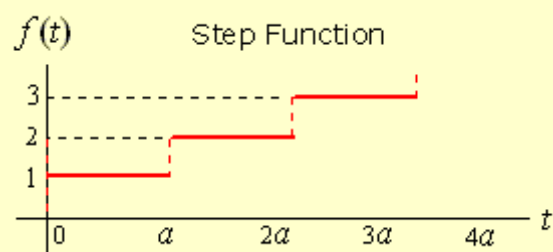
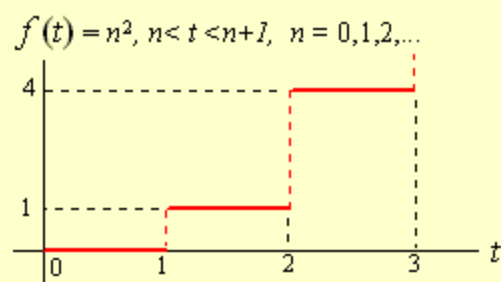


# Laplace Transforms of Common Wave Forms

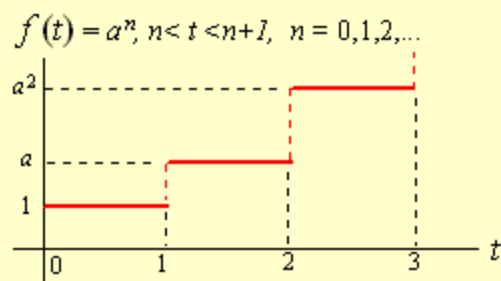
$f(t)$	$F(s)$
<p><math>f(t)</math> Square Wave</p> 	$\frac{1}{s} \tanh\left(\frac{as}{2}\right)$
<p><math>f(t)</math> Triangular Wave</p> 	$\frac{1}{as^2} \tanh\left(\frac{as}{2}\right)$
<p><math>f(t) = U(t-a)</math> Unit Function</p> 	$\frac{e^{-as}}{s}$
<p><math>f(t)</math> Pulse Function</p> 	$\frac{e^{-as} (1 - e^{-s\Delta})}{s}$



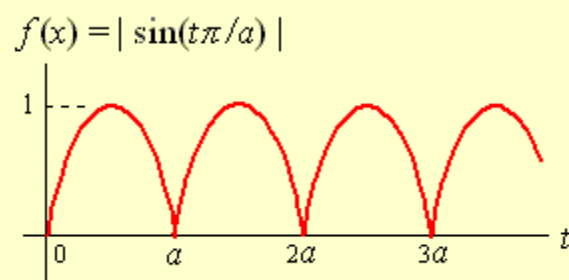
$$\frac{1}{s(1 - e^{-as})}$$



$$\frac{e^{-s} + e^{-2s}}{s(1 - e^{-s})^2}$$

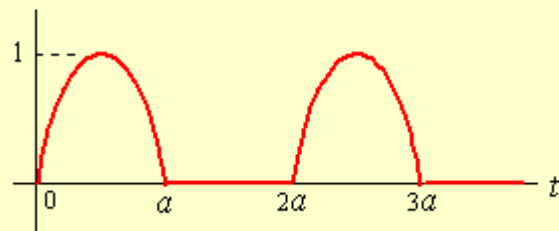


$$\frac{1 - e^{-s}}{s(1 - ae^{-s})}$$



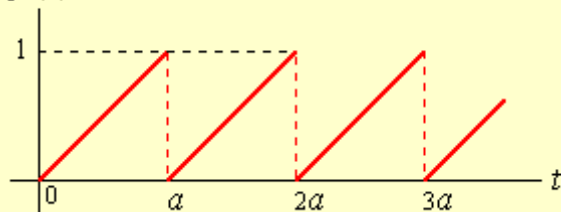
$$\frac{\pi a}{a^2 s^2 + \pi^2} \coth\left(\frac{as}{2}\right)$$

$f(x)$  Half Rectified Sine Wave



$$\frac{\pi a}{\left(a^2 s^2 + \pi^2\right)\left(1 - e^{-as}\right)}$$

$f(x)$  Saw Tooth Wave



$$\frac{1}{as^2} - \frac{e^{-as}}{s\left(1 - e^{-as}\right)}$$