

FÓRMULAS DE ANÁLISIS MATEMÁTICO.

Trigonometricas.

• $\cos(a + b) = \cos a \cdot \cos b - \sin a \cdot \sin b$ • $\cos(a - b) = \cos a \cdot \cos b + \sin a \cdot \sin b$	• $1 + \tan^2 x = \sec^2 x =$
• $\sin(a + b) = \sin a \cdot \cos b + \cos a \cdot \sin b$ • $\sin(a - b) = \sin a \cdot \cos b - \cos a \cdot \sin b$	• $\sin$
• $\sin 2x = 2 \cdot \sin x \cdot \cos x$ • $\cos 2x = \cos^2 x - \sin^2 x$	• $\cos$
• $\sin^2 x =$	• $\cos x =$
• $\cos^2 x =$	• $\sin x =$
• $\tan 2x =$	• $\cosh x =$
	• $\sinh x =$

Transformada de Laplace.

- T° del valor inicial:
- T° del valor final:
- Comportamiento de $F(s)$ cuando $s \rightarrow \infty$: Si $L\{f(t)\} = F(s)$,

UNILATERAL

$$L\{a\} =$$

$$L\{1\} =$$

$$L\{t^n\} =$$

$$L\{e^{at} \cdot f(t)\} = f(s - a)$$

$$L\{\sin wt\} =$$

$$L\{t \cdot f(t)\} =$$

$$L\{\cos wt\} =$$

$$L\{f(at)\} =$$

$$L\{\sin wt\} =$$

$$\mathcal{L}\{f(t)/t\} =$$

$$\mathcal{L}\{u(t)\} =$$

$$\mathcal{L}\{\text{función periodica}\} =$$

INVERSA	
$\mathcal{L}^{-1}\{F(s)\} = f(t)$	
$\mathcal{L}^{-1}\{F(s-a)\} = e^{at} f(t)$	$\mathcal{L}\{e^{at} \cdot f(t)\} = F(s-a)$
$\mathcal{L}^{-1}\{s F(s)\} = f(t-a) u(t-a)$	$\mathcal{L}\{t \cdot f(t)\} =$
0 resto	
$\mathcal{L}\{F(as)\} =$	$\mathcal{L}\{f(at)\} =$
	$\mathcal{L}\{f(t)/t\} =$
	$\mathcal{L}\{\text{función periodica}\} =$