

⑧  $\mathcal{L}\{e^{5t} \sinh 3t\}$   $a=5$   $f(t) = \sinh 3t$   $\rightarrow$  Primer Teorema de traslación  $\mathcal{L}\{f(t)e^{at}\} = \mathcal{L}\{f(t)\}_{s \rightarrow s-a}$

$$= \mathcal{L}\{\sinh(3t)\} \Big|_{s \rightarrow s-5}$$

$$= \frac{3}{s^2 - 9} \Big|_{s \rightarrow s-5}$$

$$= \frac{3}{(s-5)^2 - 9}$$