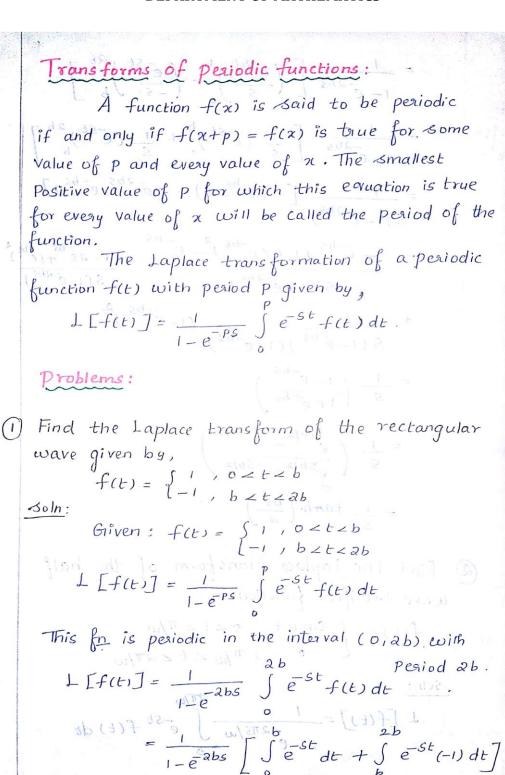




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### **DEPARTMENT OF MATHEMATICS**







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#### **DEPATMENT OF MATHEMATICS**

$$= \frac{1}{1 - e^{abs}} \left[ \left( \frac{e^{-st}}{-s} \right)_{b}^{b} - \left( \frac{e^{-st}}{-s} \right)_{b}^{ab} \right]$$

$$= \frac{1}{1 - e^{abs}} \left[ -\frac{1}{s} \left( e^{-st} \right)_{b}^{b} + \frac{1}{s} \left( e^{-st} \right)_{b}^{2b} \right]$$

$$= \frac{1}{1 - e^{abs}} \left[ -\left( e^{-bs} \right)_{b}^{a} + \frac{1}{s} \left( e^{-st} \right)_{b}^{2b} \right]$$

$$= \frac{1}{s} \left( -\frac{e^{-bs}}{-e^{-bs}} \right) + \left( e^{-bs} \right)_{a}^{a} - e^{-bs} \right]$$

$$= \frac{1}{s} \left( -\frac{e^{-bs}}{-e^{-bs}} \right)$$

$$= \frac{1}{s} \left( \frac{1 - e^{-bs}}{1 + e^{-bs}} \right)$$

$$= \frac{1}{s} \left( \frac{e^{-bs}}{1 + e^{-bs}} \right)$$

$$= \frac{1}{s} \left( \frac{e^{-st}}{1 + e^{-st}} \right)$$

$$= \frac{1}{s} \left( \frac{e^{-s$$





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#### **DEPARTMENT OF MATHEMATICS**

$$\frac{1}{1-e^{2\pi s/\omega}} \int_{0}^{\pi t} \int_{0}^{\pi$$





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### **DEPARTMENT OF MATHEMATICS**

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

$$= \frac{1}{1 - e^{2as}} \left[ \frac{-ae^{-as}}{s} - \frac{-as}{s^2} + \frac{1}{s^2} + \frac{e^{-as}}{s^2} + \frac{ae^{-as}}{s} \right]$$

$$= \frac{1}{1 - e^{2as}} \left[ \frac{1 + e^{-as}}{s^2} - \frac{e^{-as}}{s^2} + \frac{1}{s^2} + \frac{e^{-as}}{s^2} + \frac{1}{s^2} + \frac{e^{-as}}{s^2} \right]$$

$$= \frac{1}{1 - e^{-as}} \left[ \frac{1 + e^{-as}}{s^2} - \frac{e^{-as}}{s^2} + \frac{1}{s^2} +$$