

HOMWORK ASSIGNMENT # 3

PART B:

$$\exp(2jt) \rightarrow t \exp(-2jt)$$

$$\exp(-2jt) \rightarrow t \exp(2jt)$$

$$\text{So, } \cos(2t) = (\exp(2jt) + \exp(-2jt)) / 2 \rightarrow (t \exp(-2jt) + t \exp(2jt)) / 2 \rightarrow$$

$$t (\exp(2jt) + \exp(-2jt)) / 2 = t \cos(2t),$$

$$\text{So, } \cos(2t) \rightarrow t \cos(2t).$$