- Repeat the steps used in the lecture to obtain the retarded propagator, but now modifying them to obtain the advanced propagator:  $\mathcal{P}_{A}$  ( $\mathcal{L} \mathcal{Y}$ )
- Given the definition of the Feynman propagator (eq 67.1 in the lecture notes), show that:

$$D_{F}(x-y) = \Theta(x^{\circ}-y^{\circ}) D(x-y) + \Theta(y^{\circ}-x^{\circ}) D(y-x)$$