MATH 513
EXERCISES 3

A. ZEYTİN

(1) Show that the Mellin transform of :
   - e^{-t^2} is $\frac{1}{2}\Gamma(\frac{s}{2})$
   - $\frac{1}{e^t-1}$ is $\Gamma(s)\zeta(s)$

(2) Derive the correspondence between the non-classical Dirichlet series and the Mellin transform following the steps carried out for the classical Dirichlet series.

(3) Following the technique used for the even case determine the Mellin transform of the theta series of an odd character.