Quiz

February 27, 2024

1. Suppose that $Y \sim N(0,1)$. Find the pdf of $U = |Y|$.
   (HINT: Recall how WMS handled the case $U = Y^2$).

2. If Y_1 and Y_2 are independent with mgfs

$$M_{Y_1}(t) = \left(\frac{1}{3} + \frac{2}{3}e^t\right)^3 \quad \text{and} \quad M_{Y_2}(t) = \exp(2e^t - 2)$$

   compute $E(Y_1 Y_2)$.