## Homework 9.5: Convolution

- 1.  $\S3.9, \#1.$
- 2. Suppose that X and Y are independent random variables with  $f_X(x) = xe^{-x}$ ,  $x \ge 0$ , and  $f_Y(y) = e^{-y}$ ,  $y \ge 0$ . Find the pdf of X + Y.