

Mathematics 171 – HW8 – Due Thursday, May 26, 2011.

Problems 7.39 and 7.43 on pages 156-157, and 8.2,8.3,8.4,8.5,8.8,8.13 on pages 200-202 plus the following:

P. Suppose N is a spatial Poisson process on R^2 with intensity $\lambda = 1$. Let X_n be the distance to the origin of the n th closest point.

(a) Find the density of X_n .

(b) Find the density of X_n^2 .

(Express your answers as simply as possible.)