

## HOMWORK 9 (18.05, SPRING 2003)

**Read:** *Hogg and Tanis*, Sections 5.1, 5.2

**Solve:** Problems 5.1-2, 5.1-4, 5.1-8, 5.1-10, 5.2-2, 5.2-8 (except e), H9-1, H9-2

**H9-1** Let  $f(x, y) = cxy^2$ , for  $1 \leq x \leq 3$ ,  $1 \leq y \leq 3$ .

a) Find  $c > 0$  so that  $f(x, y)$  is a p.m.f.

b) Find marginal p.m.f.'s

c) Compute  $\mu_x$ ,  $\mu_y$ ,  $\sigma_x^2$ ,  $\sigma_y^2$ ,  $\rho$ .

**H9-2** Let  $f(x, y) = c\frac{x}{y}$ , for  $1 \leq x \leq 4$ ,  $1 \leq y \leq 4$ .

a), b), c) – same as in H9-1.

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This Homework is due Friday May 2 at 10:55 am.  
Hand in after class or on Thursday in 2-108 (UMO)