

Math 477, Worksheet for lecture 23

Name: \_\_\_\_\_

Net ID: \_\_\_\_\_

1. Suppose that person  $A$  is 70" and weighs 185lbs, person  $B$  is 63" and weighs 140, and person  $C$  is 72" and weighs 170lbs. What is the correlation between height and weight for these people?

2. Suppose that  $Var(X) = 100$ ,  $Var(Y) = 200$ ,  $Var(X + Y) = 400$ .

(a) Find  $Cov(X, Y)$ .

(b) Find  $Var(X - Y)$ .

(c) Are  $X$  and  $Y$  independent?