

**Stat 1040**  
**Quiz 4, Fall 2014**

**Name** \_\_\_\_\_  
**Recitation Instructor** \_\_\_\_\_

1. The summary statistics for the female runners at a recent marathon are:

$$\begin{aligned}x &= \textit{height} & AV_x &= 65 & SD_x &= 3 \\y &= \textit{weight} & AV_y &= 120 & SD_y &= 10 \\& & r &= 0.6\end{aligned}$$

- a) What does  $r$ , the correlation, measure? (1 point)
- b) Find the slope of the SD line. (1 point)
- c) Find the slope of the regression line. (1 point)
- d) Find the equation of the regression line. (3 points)
- e) Use the regression method to estimate the weight of a runner who is 70 inches tall.  
(3 points)
- f) The regression estimate in part e) is an estimate of what value? (1 point)