

Your Name: _____

Math 140: Statistics, March 11, 2008
Quiz 8, Chapter 10

1. (8 pts.) In a hypothetical study, the following results were obtained:

Age 20: Average = 100, SD = 12
Age 50: Average = 90, SD = 15, $r=0.8$

a) Estimate the average score at age 20 for those individual who scored an average of 120 at age 50.

b) Estimate the percentile rank for those individual at 50 that were in the 80th percentile at 20.

2. (8 pts.) In a hypothetical study, the following results were obtained:

Average Education = 12 years, SD = 2 years
Average Income = \$40,000, SD = \$15,000, $r=0.5$

a) What is the slope of the regression line?

b) What is the intercept of the regression line?

c) Write the equation of the regression line.

d) Use the regression line to estimate the income of those individuals with an average education of 16 years. Show your work!

Pledged: _____