

Answers to correlation and regression practice problems

1. R-adjusted = .427. A significant correlation between anxiety and depression was observed, $r(40) = +.45, p < .05$.
2. a. depression' = $21 + .6X$
b. $sy' = 3.6$. This number tells you that, on average, actual scores for depression are different from predicted scores for depression by 3.6 points
c. $X = 8.3 \rightarrow y' = 25.98$; $X = 16.1 \rightarrow y' = 30.66$; $X = 20.4 \rightarrow y' = 33.24$
3. The correlation between job satisfaction and systolic blood pressure is significantly different from zero, $r(8) = -.848, p < .05$. R-adjusted = .827.
4. $Y' = 136.3 + 39.2X$; $X = 15 \rightarrow y' = 158.7$;
5. a. A significant correlation between stress at work and overall health was observed, $r(100) = +.41, p < .05$.
b. R-adjusted = .40
c. (no c. listed)
d. $Y' = 2.155 + .15X$
e. $Zy' = +.41(Zx)$
f. $Sy' = 1.19$
g. $X = 9.1 \rightarrow y' = 3.52$; $X = 14 \rightarrow y' = 4.255$; $X = 17.3 \rightarrow y' = 4.75$
6. SPSS problem – not on Exam 2