Quick Questions 23 Correlation Analysis

I. Place the number of the appropriate formula, expression, or term next to the appropriate concept.

A. Coefficient of determination _____

B. Coefficient of correlation _____

C. A range for r _____

D. Coefficient of nondetermination _____

E. The test statistic (t) used to measure the significance of r _____

1. $1-r^2$, the variability in y that is not explained by x
2. $\frac{n(\sum XY)-(\sum X)(\sum Y)}{\sqrt{[n(\sum X^2)-(\sum X)^2][n(\sum Y^2)-(\sum Y)^2]}}$
3. $\frac{r-\rho}{\sqrt{\frac{1-r^2}{n-2}}}$
4. r^2, the variability in y that is explained by x
5. $-1 \leq r \leq +1$

II. Draw the following scatters and place the appropriate value for r in the space provided.

Perfect Positive Correlation

r = ____

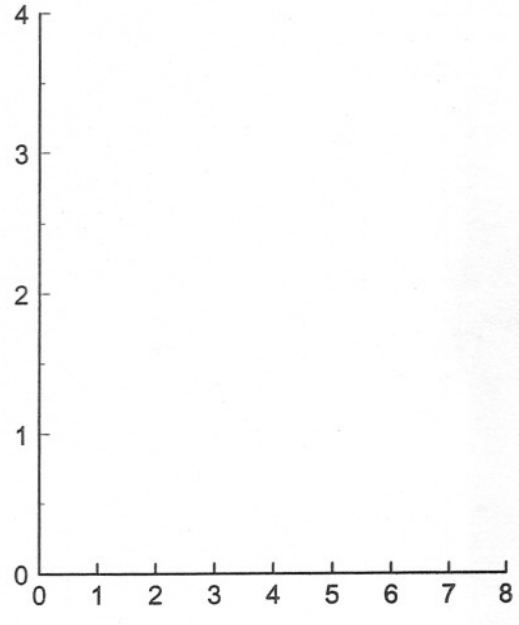
Zero Correlation

r = ____

Perfect Negative Correlation

r = ____

III. Draw a scatter diagram showing how hours studying per weekend affect grade point average.



Hours Studying per Weekend	Grade Point Average
3	3.0
2	2.0
6	3.8
3	2.6
4	3.2
8	3.7
2	2.1
3	2.8