**7. The figure below has six scatter diagrams for hypothetical data. The correlation coefficients, in scrambled order, are:**

-0.85 -0.38 -1.00 0.06 0.97 0.62

**Match the scatter diagrams with the correlation coefficients.**







**9. Find the correlation coefficient for each of the three data sets shown below.**

 X y x y x y

 1 5 1 1 1 2

 1 3 1 2 1 2

 1 5 1 1 1 2

 1 7 1 3 1 2

 2 3 2 1 2 4

 2 3 2 4 2 4

 2 1 2 1 2 4

 3 1 3 2 3 6

 3 1 3 2 3 6

 4 1 4 3 4 8

**1. The r.m.s. error of the regression line for predicting y from x is\_\_\_\_\_\_.**

(i) SD of y

(ii) SD of x

(iii) r x SD of y

(iv) r x SD of x

**(v)** $\sqrt{1-r\^2}$ **x SD of y ( I am not sure, am I right?)**

(vi)$ \sqrt{1-r\^2}$ x SD of x

**Excel (Correlation)**

The attached dataset ***scores.xls*** has two variables both numeric:

- Midterm (scores)

- Final (scores)

 **1. Compute summary statistics of the two variables and plot the data and comment of the relationship between midterm and final scores.**

**2. Compute the correlation coefficient, r, between midterm and final. Interpret your findings.**