Practice worksheet | Statistics and regression

Pearson correlation and coefficient of determination

Name: _____ Date: _____

6 questions | 18 marks

1. Given Sxx=16, Syy=25 and Sxy=18, calculate r and r^2. [3 marks]

2. A fit has r=-0.75. State its direction and percentage of response variation explained. [3 marks]

3. A student reports r=1.12. Explain the problem. [3 marks]

4. A fitted model has $r^2=0.49$ and a negative slope. Find r. [3 marks]

5. If every x-value is converted from metres to centimetres, what happens to r? [3 marks]

6. All five response values are 7. Why is Pearson r undefined? [3 marks]