

## 2. $r$ , $r^2$ , LSR By Hand, $m=r(Sy/Sx)$ , Inference (Coons-APSI-2010)

\* 1. Select all that are appropriate:  $r$ , the correlation coefficient, is:

- The best measure of how data fits any model.
- A really complicated formula that means little to the students.
- The best measure of how data fits a linear model.
- Hard to estimate given most data sets.
- A measure of direction and strength of the linear relationship between two quantitative variables

2. State your definition of "The Least Squares Regression Line":

\* 3. Select all that apply: To compute the Least Squares Regression Model from a set of data without the statistics features of a calculator or computer the following is required :

- The LSR Model Principle.
- One point that is guaranteed to be on the LSR model.
- A good knowledge of algebra 2 but not precalculus or calculus.
- A good knowledge of precalculus but not calculus.
- A good knowledge of calculus.

\* 4. To my students, the formula  $m=r(Sy/Sx)$ :

- Is just that, a meaningless formula.
- Helps them understand the relationship between  $r$  and  $m$  for a LSR model.