

Answer on Question #67808 – Math – Statistics and Probability

Question

If the two regression coefficients are 0.8 and 0.6 the coefficient of correlation is -0.69

Solution

Since both regression coefficients must have the same sign and the sign is determined by r (and vice versa), the coefficient of correlation is

$$r = \sqrt{b_x b_y} = \sqrt{0.8 * 0.6} \approx 0.69, \text{ not } -0.69.$$

The regression coefficient as well as the coefficient of correlation shows if a correlation is positive or negative. So they must have the same sign.