



Fig. 5.7. Slopes of the Regression Lines as the Tangents of Their Respective Angles

the order of the subscripts is essential to the identification of the regression coefficients.

Finally, it may be noted that Pearson's r is the *geometric mean** of the regression coefficients:

$$r = \sqrt{b_{yx}b_{xy}} \quad (5.33)$$

Since the product of their values in Formulas 5.27 and 5.28 is equal to r^2 , the square root of their product is r .

$$\hat{y} = a + b$$

$$b_{y \cdot x} = \frac{\frac{\sum (y - \bar{y})(x - \bar{x})}{n}}{\frac{\sum (x - \bar{x})^2}{n}}$$

$$\frac{\sum y}{n} = \bar{y}$$

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