

$$r = \frac{S_{xy}}{\sqrt{S_{xx} S_{yy}}}$$

$$\bar{x} = \frac{58,8 + 65,2 + 70,9}{3} = \frac{194,9}{3} = 64,97$$

$$\bar{y} = \frac{3067 + 2828 + 2891}{3} = \frac{8786}{3} = 2928,67$$

$$S_{xy} = (x_1 - \bar{x})(y_1 - \bar{y}) + (x_2 - \bar{x})(y_2 - \bar{y}) + (x_3 - \bar{x})(y_3 - \bar{y})$$

$$\Rightarrow S_{xy} = (58,8 - 65,0)(3067 - 2929) + (65,2 - 65,0)(2828 - 2929) + (70,9 - 65,0)(2891 - 2929)$$

$$\Rightarrow S_{xy} = -6,2 \cdot 138 + 0,2 \cdot (-101) + 5,9 \cdot (-38)$$

$$\Rightarrow S_{xy} = -855,6 + (-20,2) + (-224,2)$$

$$\Rightarrow S_{xy} = -1100$$

$$S_{xx} = (x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + (x_3 - \bar{x})^2$$

$$\Rightarrow S_{xx} = (-6,2)^2 + 0,2^2 + 5,9^2$$

$$\Rightarrow S_{xx} = 38,44 + 0,04 + 34,81$$

$$\Rightarrow S_{xx} = 73,29$$

$$S_{yy} = (y_1 - \bar{y})^2 + (y_2 - \bar{y})^2 + (y_3 - \bar{y})^2$$

$$\Rightarrow S_{yy} = 138^2 + (-101)^2 + (-38)^2$$

$$\Rightarrow S_{yy} = 19044 + 10201 + 1444$$

$$\Rightarrow S_{yy} = 30689$$

$$r = \frac{S_{xy}}{\sqrt{S_{xx} S_{yy}}} \Rightarrow r = \frac{-1100}{\sqrt{73,29 \cdot 30689}} \Rightarrow r = \frac{-1100}{\sqrt{2249196,81}}$$

$$\Rightarrow r = \frac{-1100}{1499,73} \Rightarrow r = \underline{\underline{-0,73}}$$