

ŚREDNIA ARYTMETYCZNA

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i$$

$$\bar{x} = \frac{1}{n} \sum_{i=1}^k x_i n_i$$

$$\bar{x} = \frac{1}{n} \sum_{i=1}^k \dot{x}_i n_i$$

WARIANCJA

$$s^2 = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2$$

$$s^2 = \frac{1}{n} \sum_{i=1}^k (x_i - \bar{x})^2 n_i$$

$$s^2 = \frac{1}{n} \sum_{i=1}^k (\dot{x}_i - \bar{x})^2 n_i$$

ODCHYLENIE STANDARDOWE

$$s = \sqrt{s^2}$$

WSPÓŁCZYNNIK ZMIENNOŚCI LOSOWEJ

$$V(s) = \frac{s}{\bar{x}} 100\%$$

MOMENT TRZECI CENTRALNY

$$\mu_3 = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^3$$

$$\mu_3 = \frac{1}{n} \sum_{i=1}^k (x_i - \bar{x})^3 n_i$$

$$\mu_3 = \frac{1}{n} \sum_{i=1}^k (\dot{x}_i - \bar{x})^3 n_i$$

WSPÓŁCZYNNIK ASYMETRII

$$A = \frac{\mu_3}{s^3}$$

DOMINANTA

$$D = x_{i_0} + \frac{(n_{i_0} - n_{i-1})}{(n_{i_0} - n_{i-1}) + (n_{i_0} - n_{i+1})} c_{i_0}$$

MEDIANA

$$\text{pozMe} = 0,5(n+1)$$

$$Me = x_{i_0} + (\text{pozMe} - n_{isk-1}) \frac{c_{i_0}}{n_{i_0}}$$