

П23

$$\bar{X}_{23} = (9+2+7+10+9+7) \cdot \frac{1}{6} = 7,33$$

$$D_{23} = \bar{X}_{23}^2 - (\bar{X}_{23})^2$$

$$\bar{X}_{23}^2 = (81+4+49+100+81+49) \cdot \frac{1}{6} = 60,66$$

$$D_{23} = 60,66 - (7,33)^2 = 6,9311$$

$$\bar{X}_{17} = (6+8+8+5+9+10+6) \cdot \frac{1}{7} = 7,43$$

$$\bar{X}_{17}^2 = (36+64+64+25+81+100+36) \cdot \frac{1}{7} = 58$$

$$D_{17} = 58 - (7,43)^2 = 2,7951$$

$$\bar{X}_4 = (7+1+3+8+9+5+6+9) \cdot \frac{1}{8} = 6$$

$$\bar{X}_4^2 = (49+1+9+64+81+25+36+81) \cdot \frac{1}{8} = 43,25$$

$$D_4 = 43,25 - 6^2 = 7,25$$

$$\bar{X}_{88} = (6+9+10+9+5+8) \cdot \frac{1}{6} = 7,83$$

$$\bar{X}_{88}^2 = (36+81+100+81+25+64) \cdot \frac{1}{6} = 64,5$$

$$D_{88} = 64,5 - 7,83^2 = 3,1911$$

$$D_{\text{ср. вымп.}} = \frac{6 \cdot 6,93 + 7 \cdot 2,7951 + 8 \cdot 7,25 + 6 \cdot 3,19}{6 + 7 + 8 + 6} = 5,16$$

~~Дискр. / Эк.~~

$$x_0 = \frac{6 \cdot 7,33 + 7 \cdot 7,43 + 8 \cdot 6 + 6 \cdot 7,83}{6 + 7 + 8 + 6} = 7,07$$

$$D_{\text{факт.}} = \frac{6 \cdot (7,33 - 7,07)^2 + 7 \cdot (7,43 - 7,07)^2 + 8 \cdot (6 - 7,07)^2 + 6 \cdot (7,83 - 7,07)^2}{6 + 7 + 8 + 6}$$

$$= 0,516$$

$$x_0^2 = \frac{6 \cdot 60,66 + 7 \cdot 58 + 8 \cdot 43,25 + 6 \cdot 64,5}{6 + 7 + 8 + 6} = \text{факт.} 55,609$$

$$D_{\text{обш.}} = 5,676$$

$$\eta = \sqrt{\frac{D_{\text{факт.}}}{D_{\text{обш.}}}} = 0,3 - \text{умеренная связь}$$