$X_1 := 19.85 \qquad X_5 := 20.13$

$X_2 := 19.92 \qquad X_6 := 20.20$

$X_3 := 19.99 \qquad X_7 := 20.27$

$X_4 := 20.06 \qquad X_8 := 20.34$

$X_9 := 20.41$

$n := 250$

$n\_s_1 := 5 \qquad n\_s_5 := 79$

$n\_s_2 := 6 \qquad n\_s_6 := 41$

$n\_s_3 := 71 \qquad n\_s_7 := 10$

$n\_s_4 := 33 \qquad n\_s_8 := 5$

$P_1 := \frac{n\_s_1}{n} = 0.02 \qquad P_5 := \frac{n\_s_5}{n} = 0.316$

$P_2 := \frac{n\_s_2}{n} = 0.024 \qquad P_6 := \frac{n\_s_6}{n} = 0.164$

$P_3 := \frac{n\_s_3}{n} = 0.284 \qquad P_7 := \frac{n\_s_7}{n} = 0.04$

$P_4 := \frac{n\_s_4}{n} = 0.132 \qquad P_8 := \frac{n\_s_8}{n} = 0.02$

$$\sum_{i=1}^{8} P_i = 1$$

$aver\_x_1 := \frac{X_1 + X_2}{2} = 19.885 \qquad aver\_x_5 := \frac{X_5 + X_6}{2} = 20.165$

$aver\_x_2 := \frac{X_2 + X_3}{2} = 19.955 \qquad aver\_x_6 := \frac{X_6 + X_7}{2} = 20.235$

$aver\_x_3 := \frac{X_3 + X_4}{2} = 20.025 \qquad aver\_x_7 := \frac{X_7 + X_8}{2} = 20.305$

$aver\_x_4 := \frac{X_4 + X_5}{2} = 20.095 \qquad aver\_x_8 := \frac{X_8 + X_9}{2} = 20.375$

$$m\_x\_summ := \sum_{i=1}^{8} \left(P_i \cdot aver\_x_i\right) = 20.127$$

$m\_x_1 := P_1 \cdot aver\_x_1 = 0.398$ $\quad$ $m\_x_5 := P_5 \cdot aver\_x_5 = 6.372$

$m\_x_2 := P_2 \cdot aver\_x_2 = 0.479$ $\quad$ $m\_x_6 := P_6 \cdot aver\_x_6 = 3.319$

$m\_x_3 := P_3 \cdot aver\_x_3 = 5.687$ $\quad$ $m\_x_7 := P_7 \cdot aver\_x_7 = 0.812$

$m\_x_4 := P_4 \cdot aver\_x_4 = 2.653$ $\quad$ $m\_x_8 := P_8 \cdot aver\_x_8 = 0.408$

$$m\_x\_s := \sum_{i=1}^{8} m\_x_i = 20.127$$

$$S\_x\_square := \sum_{i=1}^{8} \frac{n\_s_i \cdot \left(aver\_x_i - m\_x\_summ\right)^2}{n-1} = 9.877 \times 10^{-3}$$

$$S\_square(i) := \frac{n\_s_i \cdot \left(aver\_x_i - m\_x\_summ\right)^2}{n-1}$$

$S\_square(1) = 1.172 \times 10^{-3}$ $\quad$ $S\_square(5) = 4.669 \times 10^{-4}$

$S\_square(2) = 7.099 \times 10^{-4}$ $\quad$ $S\_square(6) = 1.933 \times 10^{-3}$

$S\_square(3) = 2.946 \times 10^{-3}$ $\quad$ $S\_square(7) = 1.278 \times 10^{-3}$

$S\_square(4) = 1.327 \times 10^{-4}$ $\quad$ $S\_square(8) = 1.239 \times 10^{-3}$

$$S\_x := \sum_{i=1}^{8} S\_square(i) = 9.877 \times 10^{-3}$$

$$\sigma\_x := \sqrt{S\_x\_square} = 0.099$$

При подстановки формулы Лапласа:

$$\Phi(z) := \frac{1 \int_0^z e^{\frac{-t^2}{2}}\, dt}{\sqrt{2\pi}}$$

$$nP(i) := \Phi\left(\frac{X_{i+1} - m\_x\_summ}{\sigma\_x}\right) - \Phi\left(\frac{X_i - m\_x\_summ}{\sigma\_x}\right)$$

$nP(1) = 0.016$ $\quad$ $nP(5) = 0.256$

$nP(2) = 0.066$ $\quad$ $nP(6) = 0.156$

$nP(3) = 0.167$ $\quad$ $nP(7) = 0.059$

$nP(4) = 0.262$ $\quad$ $nP(8) = 0.014$

$$summa\_nP := \sum_{i=1}^{8} nP(i) = 0.995$$

Рассчет отдельных значений параметров:

$$Z\_i\_plus\_1(p) := \frac{X_{p+1} - m\_x\_summ}{\sigma\_x} \qquad Z\_i(p) := \frac{X_p - m\_x\_summ}{\sigma\_x}$$

$Z\_i\_plus\_1(1) = -2.079$	$\Phi(Z\_i\_plus\_1(1)) = -0.481$	$Z\_i(1) = -2.784$	$\Phi(Z\_i(1)) = -0.497$
$Z\_i\_plus\_1(2) = -1.375$	$\Phi(Z\_i\_plus\_1(2)) = -0.415$	$Z\_i(2) = -2.079$	$\Phi(Z\_i(2)) = -0.481$
$Z\_i\_plus\_1(3) = -0.671$	$\Phi(Z\_i\_plus\_1(3)) = -0.249$	$Z\_i(3) = -1.375$	$\Phi(Z\_i(3)) = -0.415$
$Z\_i\_plus\_1(4) = 0.034$	$\Phi(Z\_i\_plus\_1(4)) = 0.013$	$Z\_i(4) = -0.671$	$\Phi(Z\_i(4)) = -0.249$
$Z\_i\_plus\_1(5) = 0.738$	$\Phi(Z\_i\_plus\_1(5)) = 0.27$	$Z\_i(5) = 0.034$	$\Phi(Z\_i(5)) = 0.013$
$Z\_i\_plus\_1(6) = 1.442$	$\Phi(Z\_i\_plus\_1(6)) = 0.425$	$Z\_i(6) = 0.738$	$\Phi(Z\_i(6)) = 0.27$
$Z\_i\_plus\_1(7) = 2.147$	$\Phi(Z\_i\_plus\_1(7)) = 0.484$	$Z\_i(7) = 1.442$	$\Phi(Z\_i(7)) = 0.425$
$Z\_i\_plus\_1(8) = 2.851$	$\Phi(Z\_i\_plus\_1(8)) = 0.498$	$Z\_i(8) = 2.147$	$\Phi(Z\_i(8)) = 0.484$

ДЛЯ СВЕРКИ С ТАБЛИЦЕЙ ДЛЯ СВЕРКИ С ТАБЛИЦЕЙ

$$\chi\_square := n \cdot \sum_{i=1}^{8} \frac{\left(P_i - nP(i)\right)^2}{nP(i)} = 49.478$$

$$N_1 := \frac{\left(P_1 - nP(1)\right)^2}{nP(1)} = 9.388 \times 10^{-4} \qquad N_5 := \frac{\left(P_5 - nP(5)\right)^2}{nP(5)} = 0.014$$

$$N_2 := \frac{\left(P_2 - nP(2)\right)^2}{nP(2)} = 0.027 \qquad N_6 := \frac{\left(P_6 - nP(6)\right)^2}{nP(6)} = 4.502 \times 10^{-4}$$

$$N_3 := \frac{\left(P_3 - nP(3)\right)^2}{nP(3)} = 0.083 \qquad N_7 := \frac{\left(P_7 - nP(7)\right)^2}{nP(7)} = 5.946 \times 10^{-3}$$

$$N_4 := \frac{\left(P_4 - nP(4)\right)^2}{nP(4)} = 0.065 \qquad N_8 := \frac{\left(P_8 - nP(8)\right)^2}{nP(8)} = 2.868 \times 10^{-3}$$

$$Summa\_N := \sum_{i=1}^{8} N_i = 0.198$$

$$n \cdot Summa\_N = 49.478$$