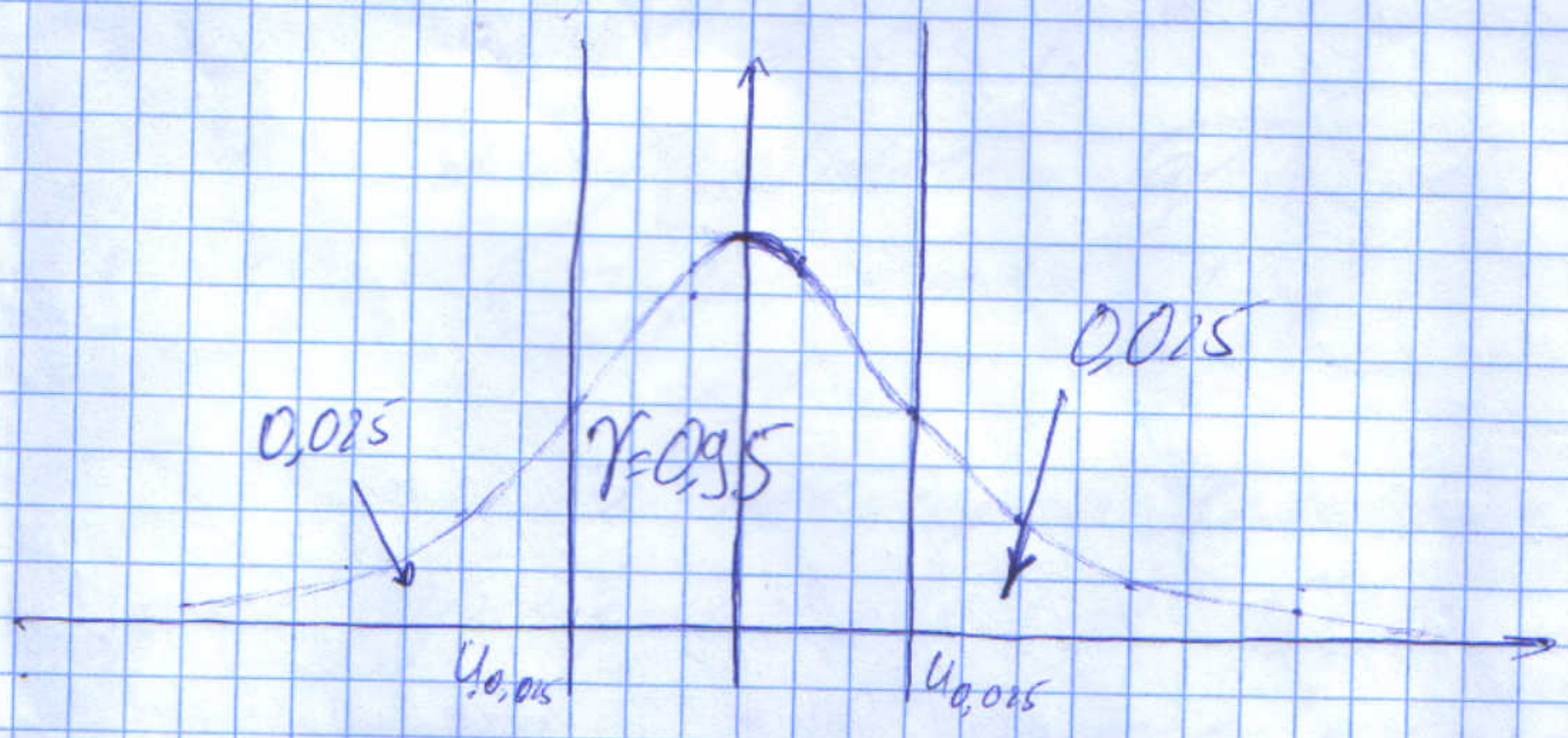
$$\Phi(\vec{x}) \doteq \frac{m - \bar{x}}{\sigma} \sqrt{n} \sim N(0,1)$$



$$P\{-u_{0,975} < \bar{T} < u_{0,975}\} = \gamma$$

$$P\{-u_{0,975} < \frac{m - \bar{x}}{\sigma}\sqrt{n} < u_{0,975}\} = \gamma$$

$$P\{\bar{x} - \frac{\sigma u_{0,975}}{\sqrt{n}} < m < \bar{x} + \frac{\sigma u_{0,975}}{\sqrt{n}}\} = \gamma$$

$$\underline{m}(\vec{x}) = \bar{x} - \frac{\sigma u_{0,975}}{\sqrt{n}}$$

$$\overline{m}(\vec{x}) = \bar{x} + \frac{\sigma u_{0,975}}{\sqrt{n}}$$

$u_{0,975} = 1.977$

$$\frac{\sigma u_{0,975}}{\sqrt{n}} = \frac{8 \cdot 1,977}{\sqrt{10}} \approx 5.$$

$\bar{x} = 3230$

Следовательно: $\underline{m} = 3230 - 5 = 3225$

$\overline{m} = 3230 + 5 = 3235$

Значит: $3225 < m < 3235$.