m σ

Zmienna losowa $X \sim N(200, 24)$. Pewien pewien pobrano o liczebności 36. Oblicz prawdopodobieństwo że średnia w próbie $P(190 < \bar{x} < 205)$

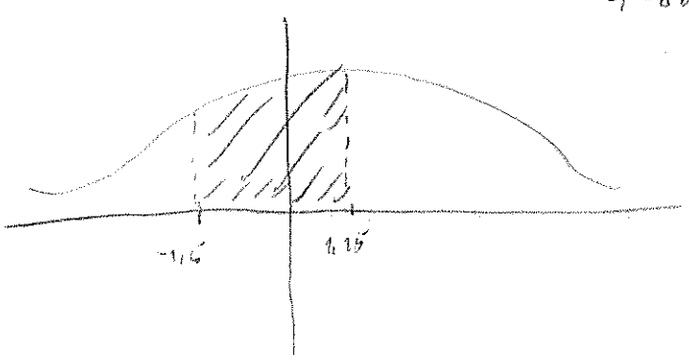
$$\bar{X} \sim N\left(200, \frac{24}{6}\right)$$

$$\bar{X} \sim N(200, 4)$$

$$P\left(\frac{190-200}{4} < T < \frac{205-200}{4}\right)$$

$$P(-2{,}5 < T < 1{,}25) = \Phi(2{,}5) + \Phi(1{,}25) = 0{,}4938 + 0{,}3944$$

$$= 0{,}8882.$$



X - M	M - L	$N(np, \sqrt{npq}1)$
	L - L	$N(m, \sigma\sqrt{n})$
	W. L - L	$N(m, \frac{\sigma}{\sqrt{n}1})$