

Zwei 36.

$$n = 150$$

$$Y_m = \frac{K_n}{m} \sim N(0,4; 0,04)$$

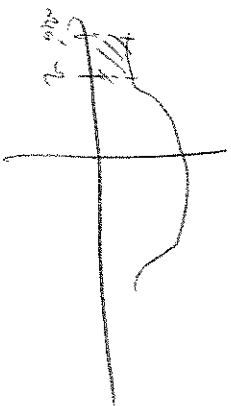
$$p = 0,4$$

$$q = 0,6$$

$$P\left(\frac{45}{150} < Y_m < \frac{48}{150}\right) = P(0,3 < Y_m < 0,32)$$

$$= P\left(\frac{0,3-0,4}{0,04} < T < \frac{0,32-0,4}{0,04}\right) = P(-2,5 < T < -2)$$

$$= \Phi(2,5) - \Phi(2) = 0,4938 - 0,4773$$



$$X_i \sim N(\mu, \sigma) \Rightarrow Z_m \sim N\left(\frac{\mu \cdot m}{m}, \frac{\sigma \sqrt{m}}{m}\right)$$

Zwei 37-41

$$Z_m = \sum_{i=1}^m X_i$$

$$X_i \sim N(0,1)$$

Zwei 39 $\sum_{i=1}^{114} X_i \sim N(114 \cdot 0,1, \sqrt{114}) \sim N(11,4)$

$$P(2m < Z_m) = P\left(T < \frac{215-0}{11}\right) = P(T < 0,5) = 0,5 + \Phi(0,5) = 0,6915$$

Wahc I 5/6 probk