

Looptijden

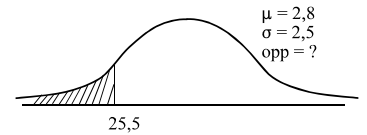
4. $v = \frac{126}{T} \quad 5,0 = \frac{126}{T} \quad \rightarrow \quad T = 25,2 \text{ min}$

$P(v > 5,0) = P(T < 25,2)$

$P(T < 25,2) = \text{normalcdf}(-10^{99}, 25,2, 28, 2,5) \approx 0,1314$

$7 \cdot 0,0313 \rightarrow 0,92$

dus ongeveer 1 dag per week

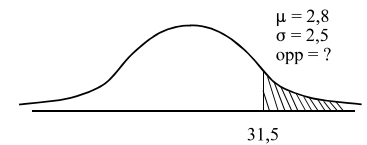


5. Kies = 0,5

$P(x < 4,5 - 0,5) = P(x < 4,0)$

$P(x > 4,5 + 0,5) = P(x > 5,0)$

$v = 4,0 \text{ geeft } 4,0 = \frac{126}{T} \quad \rightarrow \quad T = 31,5$



$P(v < 4,0) = P(T > 31,5) = \text{normalcdf}(31,5, 10^{99}, 28, 2,5) \approx 0,0808$

$v = 5,0 \text{ geeft } 5,0 = \frac{126}{T} \rightarrow T = 25,2$

$P(v > 5,0) = P(T < 25,2) \approx 0,1314 \quad (\text{zie vraag 4})$

$P(v < 4,0) \neq P(v > 5,0)$

Het vermoeden is niet juist.