Question

Let random variable W have mean $\mu_w = 17$ and standard deviation $\sigma_w = 4$. Let random variable X represent the **sum** of $n = 36$ instances of W.

Answerlist

- Determine the expected value of X. $\mu_x = ?$
- Determine the standard deviation of X. $\sigma_x = ?$
- Using normal approximation, determine $P(X < 632.16)$.
- Using normal approximation, determine $P(X > 596.88)$.
- Using normal approximation, determine $P(|X - \mu_x| < 20.16)$.
- Using normal approximation, determine $P(|X - \mu_x| > -15.12)$.

Solution

Answerlist

- 612
- 24
- 0.7995
- 0.7357
- 0.5991
- 1.4713

Meta-information

extype: string exsolution: yo exname: UZ extol: 0.01