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$$\mu_A = 13.7, \quad \sigma_A^2 = 0.00534$$

$$\sum x = -5, \quad \sum x^2 = 295$$

$$\hat{\mu}_B = 13.7 + \frac{-5}{100} = 13.7 - 0.05 = \underline{13.65} \quad (8) \quad \checkmark$$

$$S_B = \sum x_B^2 - \frac{(\sum x_B)^2}{n} = 295 - \frac{(-5)^2}{10} = 292.5 \quad (\times 100^{-2})$$

$$V_B = \frac{S_B}{n-1} = \frac{292.5}{10-1} = 32.5 \quad (\times 100^{-2})$$

$$\hat{\sigma}_B^2 = S_B^2 = V_B = 32.5 \quad (\times 100^{-2}) + 0.00325 \quad (9) \quad \underline{\underline{I}}$$

$$\begin{cases} H_0: \sigma_B^2 = \sigma_A^2 & \sigma_0^2 \leftarrow \sigma_A^2 = 0.00534 \\ H_1: \sigma_B^2 < \sigma_A^2 & \alpha = 0.05 \end{cases} \quad \chi^2 \text{ 検定} \quad (10) \quad \underline{\underline{I}}$$

$$\chi^2 = \frac{S}{\sigma_0^2} = \frac{0.02925}{0.00534} = 5.477528 \div 5.478 \quad (11) \quad \underline{\underline{I}}$$

$$\phi = n-1 = 10-1 = 9 \quad (12) \quad \checkmark$$

$\alpha = 0.05$ の 片側 (下) 検定
(7)

(13) $\checkmark$

$$\chi_0^2 \leq \chi^2(\phi, 1-\alpha) = \chi^2(9, 0.95) = 3.33$$

$$5.478 \not\leq 3.33$$

減少 (右側) に えない
(棄却) (14) $\underline{\underline{I}}$

(棄却) えない