

$$1) N(\mu, \sigma^2)$$

$$\text{avec } \mu = \frac{75+72+56+68+74}{5} = 69$$

$$\sigma = \sqrt{\frac{(75-69)^2 + (72-69)^2 + (56-69)^2 + (68-69)^2 + (74-69)^2}{5}}$$

$$\begin{aligned} \sigma &= \sqrt{\frac{36 + 9 + 169 + 1 + 25}{5}} \\ &= 6,92 \end{aligned}$$

$$2) P(X > 50) = 1 - P(X \leq 50)$$

$$\begin{aligned} P(X \leq 50) &= P\left(Y \leq \frac{50-69}{6,92}\right) = P(Y \leq -2,74) \\ &= 1 - P(Y \leq 2,74) \end{aligned}$$

Pour  $P(X > 50) = P(Y \leq 2,74) = \underline{\underline{0,9969}}$  (D'après la table loi Normale)

$$\begin{aligned} P(X > 70) &= 1 - P(X \leq 70) = 1 - P\left(Y \leq \frac{70-69}{6,92}\right) \\ &= 1 - P(Y \leq 0,1445) \\ &= 1 - \Phi(0,1445) \\ &= 1 - 0,5557 \\ &= \underline{\underline{0,4443}} \end{aligned}$$