

62.

$$\mu_1 = 15, \mu_2 = 30, \mu_3 = 20$$

$$\rightarrow \sigma_1 = 1, \sigma_2 = 2, \sigma_3 = 1.5$$

mean of the total time

$$\rightarrow \mu = 15 + 30 + 20 = 65 \text{ min}$$

standard deviation ( $\sigma$ ) =

$$= \sqrt{(1)^2 + (2)^2 + (1.5)^2}$$

$$= \sqrt{1 + 4 + 2.25}$$

$$= \sqrt{7.25}$$

$\rightarrow$  probability that total time is almost

$$\rightarrow P(X \leq 60)$$

$$\rightarrow P(Z \leq -(65 - 60) / \sqrt{7.25})$$

$$\rightarrow P\left(Z \leq \frac{-5}{\sqrt{7.25}}\right)$$

$$\rightarrow P(Z \leq -1.8569) \rightarrow P(Z \geq 1.8569)$$

$$\rightarrow 1 - P(Z \leq 1.8569) \rightarrow 1 - P(Z \leq 1.86)$$

$$\rightarrow 1 - 0.9685 \rightarrow \underline{0.0315}$$