



$$N(A \cup B \cup C) = a + b + c + \alpha + \beta + \delta + \epsilon$$

$$N(A) = a + \beta + \delta + \epsilon$$

$$N(A \cap B) = \delta + \epsilon$$

$$N(B) = \alpha + b + \delta + \epsilon$$

$$N(A \cap C) = \beta + \epsilon$$

$$N(C) = \alpha + \beta + c + \epsilon$$

$$N(B \cap C) = \alpha + \delta + \epsilon$$

$$N(A \cap B \cap C) = \epsilon$$

$$N(A \cup B \cup C) = N(A) + N(B) + N(C) - N(A \cap B) - N(A \cap C) - N(B \cap C) + N(A \cap B \cap C)$$

$$N(A) = 20 \quad N(B) = 14 \quad N(C) = 10$$

$$N(A \cap B \cap C) = 0 = \epsilon$$

$$N(A \cup B \cup C) = 22 = a + b + c + \alpha + \beta + \delta$$

$$\Rightarrow 22 = 20 + 14 + 10 - N(A \cap B) - N(A \cap C) - N(B \cap C) + 0 \Rightarrow \underline{\alpha + \beta + \delta = 22}$$

$$\text{ee } a = b = c = 0$$

$$\begin{aligned} \beta + \delta &= 20 \\ \alpha + \delta &= 14 \\ \alpha + \beta &= 10 \end{aligned}$$

$$\Rightarrow \alpha = 2, \beta = 8, \delta = 12 \quad \checkmark$$