Answer on Question #53325 – Math – Statistics and Probability

Question

56 people go to a party. 24 take food, 12 take drink and 8 take both food and drink. Find the probability of someone from the party going without food or drink.

Solution

Probability of someone from the party going with food or drink is

$$P(A) = \frac{24 + 12 - 8}{56} = \frac{36 - 8}{56} = \frac{28}{56} = \frac{1}{2}$$

Probability of someone from the party going without food or drink is

$$P(\bar{A}) = 1 - P(A) = 1 - \frac{1}{2} = \frac{1}{2}$$