

Answer on Question #82887 – Math – Statistics and Probability

The probability that a married man watches a TV show is 0.4 and the probability that a married woman watches the show is 0.5. The probability that a man watches the show, given his wife does, is 0.7. Find the probability that:

- a) a married couple watches the show
- b) a wife watches the show given that her husband does;
- c) at least 2 person of a married couple will watch the show.

Question

Dear Mr. John i have an extra question: d) Find the probability that at most one member of a married couple will watch the show.

Solution

$$P(\text{at most 1 watch}) = 1 - P(M \text{ and } W).$$

$$P(M \text{ and } W) = P(M|W) * P(W) = 0.7 * 0.5 = 0.35.$$

$$\text{Thus, } P(\text{at most 1 watch}) = 1 - 0.35 = 0.65.$$