8D – Conditional Probability



EX4) Use a standard deck of 52 cards to find the probabilities:

a) Two cards are drawn without replacement in succession. What is the probability that the second card drawn is an ace, given that the first card drawn was an ace?b) Two cards are drawn without replacement. What is the probability the second card is a red face card given the first card is a red face card?

Video - <u>"AP Stats Conditional Probability & Independence" - mathcox (8:11)</u>

EX5) Suppose 32% of American adults have blonde hair, 48% have brown eyes, and 21% have both. Use conditional probability to determine if having blonde hair and having brown eyes are independent events.

EX6) Given that 75% of American Adults have children, 60% are married, and 45% are both married and have children, use conditional probability to determine if being married and having children are independent events.

Video - "How to Find Conditional Probabilities and Determine if Events are Independent" -MathBootcamps (6:52)

EX7) A group of full time and part time employees were asked if they were interested in additional training or not. Use the results to determine if "an employee being full time" and "an employee interested in additional training" are independent.

	Full Time	Part Time	Total
Interested in	66	83	149
Additional			
Training			
Not Interested	76	62	138
in Additional			
Training			
Total	142	145	287