

- III. Answer the following questions based upon this study of money spent on souvenirs at a virtual reality theme park.

Age	Money spent on souvenirs	Under \$5	\$5 and over	Totals
Under 22		5	15	20
22 and older		20	20	40
Totals		25	35	60

- A. Use a formula to calculate the $P(\text{Age} < 22 \text{ or } \text{Age} \geq 22)$.
- B. The events in question A are _____ and therefore, the _____ rule for _____ is applicable.
- C. Use a formula to calculate the probability of someone being at least 22 years old and spending \$5 and over.
- D. Question C required the _____ rule for _____ because the events are _____.
- E. Use Bayes' theorem to calculate the probability of someone at least 22 years old spending \$5 or more.
- F. Using the above chart, calculate the probability of someone at least 22 years old spending less than \$5.
- G. Why does your answer to question F make sense?