

One card is drawn from a deck and then replaced, a second card is then drawn.

What is the probability of drawing an ace on the first draw and a red card on the second?

What is the probability of drawing a 5 on the first card and a face card on the second?

What is the probability of drawing a club on the first draw and a red jack on the second?

A card is drawn from a deck and not replaced before the next card is drawn.

What is the probability of drawing an ace on the first card and a 10 on the second card?

What is the probability of drawing a king on the first card and a face card on the second?

What is the probability of drawing a red card on the first draw and a 2 on the second card?

A survey of 187 eighth graders included 92 boys and 95 girls. 56% of the boys said they participated in an after-school activity, and 47% of the said they did not participate in an after-school activity. Complete the table to answer the questions.

After School Activity			
	Yes	No	Total
Male			
Female			
Total			187

Suppose you pick one student at random from these 187 eighth graders. Find the probability of each of the following events.

$P(\textit{Participates in After-School Act})$

$P(\textit{Is a boy})$

$P(\textit{Participates in After-School Act and is a boy})$

$P(\textit{Participates in After-School Act or is a boy})$

$P(\textit{Participates in After - School Act} | \textit{Is a boy})$

$P(\textit{Is a boy} | \textit{Participates in After - School Act})$

Is being a boy and participating in after school activity independent? Explain your reasoning.