Conditional Probability & Independent Events · 1

A bag has 6 red, 5 blue and 2 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that both marbles are red.

Conditional Probability & Independent Events · 2

A and B are mutually exclusive events with $P(A) = \frac{11}{15}$ and $P(B) = \frac{1}{15}$. Find P(A or B).

Conditional Probability & Independent Events · 3

$P(A) = \frac{7}{10}$, $P(B) = \frac{3}{10}$ and P(A and B) $= \frac{1}{10}$. Find P(A or B).

Conditional Probability & Independent Events · 4

A bag has 6 red, 4 blue and 4 green marbles. One marble is drawn and put back, then a second marble is drawn. Find the probability that the first is green and the second is red.

Conditional Probability & Independent Events · 5

A bag has 7 red, 7 blue and 3 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is blue and the second is green.

Conditional Probability & Independent Events · 6

A bag has 4 red, 6 blue and 6 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is green and the second is blue.

Conditional Probability & Independent Events · 7

$P(A \text{ and } B) = \frac{1}{9}$ and $P(B) = \frac{1}{3}$. Find $P(A \mid B)$.

Conditional Probability & Independent Events · 8

$P(A) = \frac{1}{2}$, $P(B) = \frac{11}{16}$ and P(A and B) $= \frac{5}{16}$. Find P(A or B).

Conditional Probability & Independent Events · 2

ANSWER

$$\frac{4}{5}$$

Conditional Probability & Independent Events · 1

ANSWER

$$\frac{5}{26}$$

Conditional Probability & Independent Events · 4

ANSWER

$$\frac{6}{49}$$

Conditional Probability & Independent Events · 3

ANSWER

$$\frac{9}{10}$$

Conditional Probability & Independent Events · 6

ANSWER

$$\frac{3}{20}$$

Conditional Probability & Independent Events · 5

ANSWER

$$\frac{21}{272}$$

Conditional Probability & Independent Events · 8

ANSWER

$$\frac{7}{8}$$

Conditional Probability & Independent Events · 7

ANSWER

$$\frac{1}{3}$$

Conditional Probability & Independent Events · 9

One card is drawn from a standard deck of 52 cards. Find the probability that it is a 7 or a diamond.

Conditional Probability & Independent Events · 10

A bag has 2 red, 5 blue and 2 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that both marbles are green.

Conditional Probability & Independent Events · 11

A bag has 5 red, 3 blue and 8 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is red and the second is green.

Conditional Probability & Independent Events · 12

$P(A \text{ and } B) = \frac{2}{25}$ and $P(B) = \frac{2}{5}$. Find $P(A \mid B)$.

Conditional Probability & Independent Events · 13

$P(A) = \frac{1}{3}$, $P(B) = \frac{2}{3}$ and $P(A \text{ and } B) = \frac{1}{12}$. Find $P(A \text{ or } B)$.

Conditional Probability & Independent Events · 14

One card is drawn from a standard deck of 52 cards. Find the probability that it is a 2 or a 3.

Conditional Probability & Independent Events · 15

A bag has 2 red, 2 blue and 6 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is green and the second is red.

Conditional Probability & Independent Events · 16

A bag has 6 red, 4 blue and 6 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is red and the second is green.

Conditional Probability & Independent Events · 10

ANSWER

$$\frac{1}{36}$$

Conditional Probability & Independent Events · 9

ANSWER

$$\frac{4}{13}$$

Conditional Probability & Independent Events · 12

ANSWER

$$\frac{1}{5}$$

Conditional Probability & Independent Events · 11

ANSWER

$$\frac{1}{6}$$

Conditional Probability & Independent Events · 14

ANSWER

$$\frac{2}{13}$$

Conditional Probability & Independent Events · 13

ANSWER

$$\frac{11}{12}$$

Conditional Probability & Independent Events · 16

ANSWER

$$\frac{3}{20}$$

Conditional Probability & Independent Events · 15

ANSWER

$$\frac{2}{15}$$

A and B are mutually exclusive events with $P(A) = \frac{1}{5}$ and $P(B) = \frac{2}{5}$. Find P(A or B).

$P(A) = \frac{1}{2}$, $P(B) = \frac{1}{4}$ and P(A and B) = $\frac{1}{8}$. Find P(A or B).

A bag has 7 red, 3 blue and 2 green marbles. One marble is drawn and put back, then a second marble is drawn. Find the probability that both marbles are green.

A bag has 3 red, 3 blue and 7 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is red and the second is blue.

A bag has 2 red, 5 blue and 3 green marbles. Two marbles are drawn one after the other without replacement. Find the probability that the first is red and the second is green.

$P(A \text{ and } B) = \frac{5}{12}$ and $P(B) = \frac{5}{6}$. Find $P(A \mid B)$.

$P(A) = \frac{7}{20}$, $P(B) = \frac{3}{10}$ and P(A and B) = $\frac{1}{20}$. Find P(A or B).

One card is drawn from a standard deck of 52 cards. Find the probability that it is a face card (jack, queen or king) or a club.

Conditional Probability & Independent Events · 18

ANSWER

$$\frac{5}{8}$$

Conditional Probability & Independent Events · 17

ANSWER

$$\frac{3}{5}$$

Conditional Probability & Independent Events · 20

ANSWER

$$\frac{3}{52}$$

Conditional Probability & Independent Events · 19

ANSWER

$$\frac{1}{36}$$

Conditional Probability & Independent Events · 22

ANSWER

$$\frac{1}{2}$$

Conditional Probability & Independent Events · 21

ANSWER

$$\frac{1}{15}$$

Conditional Probability & Independent Events · 24

ANSWER

$$\frac{11}{26}$$

Conditional Probability & Independent Events · 23

ANSWER

$$\frac{3}{5}$$