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Begonnen am Montag, 20. Februar 2023, 18:52**Status** Beendet**Beendet am** Montag, 20. Februar 2023, 19:18**Verbrauchte Zeit** 26 Minuten 6 Sekunden**Bewertung** 9 von 10 (90%)**Feedback**

Congratulations! You have successfully passed the test!

Frage 1

Vollständig

Erreichte
Punkte 1 von 1

A couple is planning their wedding reception. The bride's parents have given them a choice of four reception facilities, three caterers, five DJs, and two limo services. If the couple randomly selects one reception facility, one caterer, one DJ, and one limo service, how many different outcomes are possible?

- ☐ a. 60
- ☒ b. more than 100
- ☐ c. only one
- ☐ d. 40

Frage 2

Vollständig

Erreichte
Punkte 1 von 1

Let $S = \{s \mid s \in \mathbb{Z} \text{ and } |s| \leq 10\}$. What is the probability of choosing a number from S which is either even or divisible by five? Here, we assume that zero is an even number.

- ☐ a. $\frac{3}{5}$
- ☒ b. $\frac{13}{21}$
- ☐ c. $\frac{4}{7}$
- ☐ d. $\frac{5}{7}$

Frage 3

Vollständig

Erreichte
Punkte 1 von 1

Sixty-five percent of all divorce cases cite incompatibility as the underlying reason. If four couples file for a divorce, what is the probability that exactly two will state incompatibility as the reason?

- ☒ a. 0.311
- ☐ b. 0.254
- ☐ c. 0.104
- ☐ d. 0.423

Frage 4

Vollständig

Erreichte
Punkte 1 von 1

Out of the students in a class, 60% are playing chess, 70% love ice skating, and 40% fall into both categories. Compute the probability that a randomly selected student is neither a chess player nor an ice skating lover.

- ☒ a. 0.1
- ☐ b. 0.4
- ☐ c. 0.85
- ☐ d. 0.9

Frage 5

Vollständig

Erreichte

Punkte 1 von 1

A random sample of 250 juniors majoring in psychology or communication at a large university is selected. These students are asked whether or not they are happy with their majors. The following table gives the results of the survey. Assume that none of these 250 students is majoring in both areas.

	Happy	Unhappy
Psychology	80	20
Communication	115	35

If one student is selected at random from this group, find the probability that this student is a communication major given that the student is happy with the choice of major.

- ☐ a. 0.533
- ☒ b. 0.590
- ☐ c. 0.767
- ☐ d. 0.460

Frage 6

Vollständig

Erreichte

Punkte 1 von 1

Anna throws 25 identical balls into 12 urns at random, where each urn is equally likely and each throw is independent of any other throw. What is the probability that the tenth urn is empty?

- ☐ a. $(\frac{24}{25})^{12}$
- ☒ b. $(\frac{11}{12})^{25}$
- ☐ c. $(\frac{25}{12})(\frac{24}{25})^{12}$
- ☐ d. $(\frac{25}{12})(\frac{1}{12})^{25}$

Frage 7

Vollständig

Erreichte

Punkte 0 von 1

Sam rolls two fair six sided dice. Each one of the 36 possible outcomes is assumed to be equally likely.

The probability that at least one die roll is a six equals

- ☐ a. 1/6
- ☒ b. 1/3
- ☐ c. 2/3
- ☐ d. 11/36

Frage 8

Vollständig

Erreichte

Punkte 1 von 1

The probability that a randomly selected student from a college is a female is 0.55 and the probability that a student works for more than 10 hours per week is 0.62. If these two events are independent, find the probability that a randomly selected student is a male and works for more than 10 hours per week.

- ☐ a. 0.341
- ☐ b. 0.729
- ☒ c. 0.279
- ☐ d. 0.109

Frage 9

Vollständig

Erreichte

Punkte 1 von 1

What is the probability of getting at least two tails in three tosses of a fair coin?

- ☐ a. $\frac{1}{4}$
- ☐ b. $\frac{3}{8}$
- ☐ c. $\frac{3}{4}$
- ☒ d. none of the rest

Frage 10

Vollständig

Erreichte

Punkte 1 von 1

A medical treatment has a success rate of 0.75. Two patients will be treated with this treatment. Assuming the results are independent for the two patients, what is the probability that at least one of them will be successfully cured?

- ☐ a. 0.5625
- ☐ b. 0.4750
- ☒ c. 0.9375
- ☐ d. 0.1875

[◀ Lecture slides - "Stripped" PDF files](#)

Direkt zu:

[Test 2 - Conditional probabilities and the Bayes theorem ▶](#)