1. You flip a fair coin two times. What is the probability of getting one head and one tail in any order? 1 point

- $\frac{1}{4}$
- $\frac{3}{4}$
- $\frac{1}{2}$

2. You throw two dice and sum the result, what is the probability the sum is equal to 10? 1 point

- $\frac{1}{12}$
- $\frac{1}{18}$
- $\frac{1}{36}$
- $\frac{1}{6}$

3. You throw a six-sided dice 10 times, summing the result in each throw. What is the probability that the **sum of results** is **greater than** 10? 1 point

Hint: Use the complement rule!

- $\frac{6^{10}-1}{6^{10}}$
- $\frac{1}{6}$
- $\frac{5}{6}$
- $\frac{1}{6^{10}}$

4. In an experiment, there are 100 patients. After taking medicine, 50 people experienced a headache and 50 people experienced a fever. The doctors want to find the probability that a patient may experience a headache **or** fever. 1 point

Which of the following statements is true?

- ◯ Not enough information is given to calculate $P(\text{fever or headache})$.
- ◯ $P(\text{fever or headache}) = P(\text{fever}) + P(\text{headache}) = 1$.
- ◯ $P(\text{fever or headache}) = P(\text{fever}) * P(\text{headache}) = 0.25$.

5. A software company conducted a test on their new platform by exposing their users to two versions of the same product. 1 point

Number of users that were given version A: 4000

Number of user that were given version B: 5000

Number of users that experienced a bug: 3000

Number of users with version B that experienced a bug: 1500

What is the probability that a user tested Version B, **given** they experienced a bug during testing?

Hint: $P(X|Y) = \frac{P(X \cap Y)}{P(Y)}$

- ◯ 10%
- ◯ 20%.
- ◯ 50%
- ◯ 40%