**1.** A test in which the outcome is uncertain.

→ **random experiment (확률 실험)**

**2.** A complete collection of outcomes. All of the possible outcomes of an experiment.

→ **sample space (표본공간)**

**3.** A subset of the sample space of a random experiment. A single outcome or a collection of outcomes from a sample space.

→ **event (사건)**

**4.** A real number on a scale of 0 to 1 that represents the likelihood or chance of a certain event occurring.

→ **probability (확률)**

**5.** The ratio of the number of outcomes in which a specified event occurs to the total number of trials. The occurrence of an event in a large number of repetitions of the experiment.

→ **relative frequency (상대빈도)**

**6.** A branch of mathematics that deals with counting and enumerating the number of ways to arrange or select objects from a set. It involves the study of permutations, combinations, and other related concepts.

→ **combinatorics (조합론)**

**🔢 7 ~ 11번**

**7.** A branch of mathematics that deals with the collection, organization, analysis, interpretation, and presentation of data.

→ **statistics (통계)**

**8.** A branch of statistics that describes or summarizes features from a collection of information. Without assumptions about the underlying probability distribution, it is concerned with summarizing and presenting data in a meaningful and informative way.

→ **descriptive statistics (기술통계)**

**9.** A function of sample values. Any quantity computed from values in a sample which is considered for a statistical purpose.

→ **statistic (통계량)**

**10.** A measure of central tendency. The sum of a collection of values divided by the number of the values in the collection.

→ **arithmetic mean (산술평균)**

**11.** A measure of dispersion. The average of the squared differences of each data point from the mean.

→ **variance (분산)**

**🔢 12 ~ 16번**

**12.** A statement or principle that is accepted to be true, but need not be so. Fundamental assumption without proof.

→ **axiom (공리)**

**13.** Events that cannot occur simultaneously. Only one event can occur at a time, i.e., the occurrence of one event precludes the occurrence of other events.

→ **mutually exclusive (상호배타)**

**14.** Events that together cover all possible outcomes of a particular experiment. One of the events must always occur.

→ **collectively exhaustive (전체포괄)**

**15.** Two experiments or events that have nothing to do with each other. The occurrence of the first event does not affect the probability of the occurrence of the second event.

→ **statistically independent (통계적 독립)**

**16.** The probability of an event occurring given that another event has already occurred. When two events are independent, conditioning one upon the other has no effect.

→ **conditional probability (조건부 확률)**

**🔢 17 ~ 21번**

**17.** It describes the probability of an event, based on prior knowledge of conditions that might be related to the event, i.e., one conditional probability to be computed from the other. This rule can be used to compute the probability of an event based on new evidence or information.

→ **Bayes’ rule (베이즈 규칙)**

**18.** A mapping from the sample space to the real line. A variable whose numerical value is determined by the outcome of a random experiment.

→ **random variable (확률변수)**

**19.** A function that describes the probabilities of values of a random variable.

→ **probability distribution (확률분포)**

**20.** A random variable all of whose values are equally likely.

→ **uniform random variable (균일 확률변수)**

**21.** A discrete random variable that takes on only one of two discrete values. e.g., 0 or 1.

→ **Bernoulli random variable (베르누이 확률변수)**

**🔢 22 ~ 27번**

**22.** A discrete random variable that represents the number of successes in a fixed number of independent and identical Bernoulli trials.

→ **binomial random variable (이항 확률변수)**

**23.** A discrete random variable that represents the number of rare events that occur at a constant rate in a fixed interval of time or unit space.

→ **Poisson random variable (푸아송 확률변수)**

**24.** A discrete random variable that represents the number of independent and identical Bernoulli trials required to obtain the first success.

→ **geometric random variable (기하 확률변수)**

**25.** A discrete random variable that represents the number of independent and identical Bernoulli trials required to obtain a certain number of successes.

→ **Pascal random variable (파스칼 확률변수)**

**26.** A continuous random variable that represents the time between two successive events that occur independently. It is also closely related to the Poisson random variable.

→ **exponential random variable (지수 확률변수)**

**27.** A continuous random variable that represents the waiting time for a certain number of/multiple events that occur independently.

→ **Erlang random variable (얼랑 확률변수)**

**🔢 28 ~ 30번**

**28.** A continuous random variable that has a symmetric/double exponential probability distribution with respect to its mean and a scale parameter. Its probability distribution is expressed in terms of the absolute difference from the mean.

→ **Laplace random variable (라플라스 확률변수)**

**29.** A continuous random variable that has a bell-shaped probability distribution with a single peak at its mean value and a dispersion parameter. Its probability distribution is expressed in terms of the squared difference from the mean.

→ **Gaussian/Normal random variable (가우시안 확률변수)**

**30.** A sum of the squares of a certain number of independent standard normal random variables. Its probability distribution can be interpreted as a special case of the gamma distribution.

→ **chi-square random variable (카이제곱 확률변수)**