

Sheet – 06: Probability – Basic Ideas

- 1) What is an experiment in the context of probability?
 - (a) A scientific test
 - (b) A process that results in one of several possible outcomes
 - (c) A mathematical calculation
 - (d) A statistical graph
- 2) What is a trial in probability?
 - (a) A legal proceeding
 - (b) A single performance of an experiment
 - (c) A type of error
 - (d) A type of statistical graph
- 3) What is an outcome in probability?
 - (a) The result of a trial
 - (b) The process of performing an experiment
 - (c) The total number of possible results
 - (d) The likelihood of an event occurring
- 4) What is an observation in probability?
 - (a) The act of watching an experiment
 - (b) The result of a single trial of an experiment
 - (c) The total number of possible outcomes
 - (d) The likelihood of an event occurring
- 5) What is a sample space in probability?
 - (a) The physical location where an experiment is conducted
 - (b) The set of all possible outcomes of an experiment
 - (c) The likelihood of an event occurring
 - (d) The number of trials conducted in an experiment
- 6) What is a finite sample space?
 - (a) A sample space with a countable number of outcomes
 - (b) A sample space with an uncountable number of outcomes
 - (c) A sample space with no outcomes
 - (d) A sample space with negative outcomes
- 7) What is an infinite sample space?
 - (a) A sample space with a countable number of outcomes
 - (b) A sample space with an uncountable number of outcomes
 - (c) A sample space with no outcomes
 - (d) A sample space with negative outcomes
- 8) What is an event in probability?
 - (a) A social gathering
 - (b) A single outcome of an experiment
 - (c) A subset of the sample space
 - (d) The total number of possible outcomes
- 9) What is the probability of an impossible event?
 - (a) 0
 - (b) 1
 - (c) 0.5
 - (d) Undefined
- 10) What is the probability of a certain event?
 - (a) 0
 - (b) 1
 - (c) 0.5
 - (d) Undefined
- 11) What is the sum of the probabilities of all outcomes in a sample space?
 - (a) 0
 - (b) 1
 - (c) The number of outcomes in the sample space
 - (d) Undefined
- 12) If an event includes all outcomes in the sample space, what is its probability?
 - (a) 0
 - (b) 1
 - (c) 0.5
 - (d) Undefined
- 13) What is the probability of the complement of an event?
 - (a) 0
 - (b) 1 minus the probability of the event
 - (c) The probability of the event
 - (d) Undefined
- 14) If two events are mutually exclusive, what is the probability of their intersection?
 - (a) 0
 - (b) 1
 - (c) 0.5
 - (d) Undefined
- 15) If two events are independent, what is the probability of their intersection?
 - (a) 0
 - (b) The product of their probabilities
 - (c) The sum of their probabilities
 - (d) Undefined
- 16) What is the probability of the union of two mutually exclusive events?
 - (a) 0
 - (b) The product of their probabilities
 - (c) The sum of their probabilities
 - (d) Undefined
- 17) What is the probability of the union of two independent events?
 - (a) 0
 - (b) The product of their probabilities

- (c) The sum of their probabilities minus the probability of their intersection
(d) Undefined
- 18) What is the maximum value a probability can take?
(a) 0
(b) 1
(c) The number of outcomes in the sample space
(d) Infinity
- 19) What is the minimum value a probability can take?
(a) 0
(b) 1
(c) -1
(d) Undefined
- 20) If an event has a probability of 0, does it mean it is impossible?
(a) Yes
(b) No
(c) It depends on the sample space
(d) It depends on the number of trials
- 21) If an event has a probability of 1, does it mean it is certain to occur?
(a) Yes
(b) No
(c) It depends on the sample space
(d) It depends on the number of trials
- 22) What is the probability of an event that is not in the sample space?
(a) 0
(b) 1
(c) Undefined
(d) It depends on the event
- 23) What is the probability of the empty set?
(a) 0
(b) 1
(c) Undefined
(d) It depends on the sample space
- 24) What is the probability of the sample space?
(a) 0
(b) 1
(c) Undefined
(d) It depends on the sample space
- 25) What is the probability of the union of an event and its complement?
(a) 0
(b) 1
(c) The probability of the event
(d) Undefined
- 26) What is the probability of the intersection of an event and its complement?
(a) 0

- (b) 1
(c) The probability of the event
(d) Undefined
- 27) If an event has a probability of 0.5, does it mean it is equally likely to occur or not occur?
(a) Yes
(b) No
(c) It depends on the sample space
(d) It depends on the number of trials
- 28) John tosses a fair coin. What is this action called in probability terminology?
(a) An event
(b) An outcome
(c) A trial
(d) A sample space
- 29) Sarah rolls a six-sided die. The die landing on a 4 is an example of what in probability?
(a) An experiment
(b) An outcome
(c) A trial
(d) A sample space
- 30) In a game of cards, drawing a card from a standard deck is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 31) The set of all possible outcomes when rolling a six-sided die is called what?
(a) An event
(b) An outcome
(c) A trial
(d) A sample space
- 32) In a game of cards, drawing a heart is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 33) When flipping a coin twice, the set of all possible outcomes (HH, HT, TH, TT) is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) A sample space
- 34) In a game of cards, drawing a card from a standard deck multiple times is an example of what?
(a) An event
(b) An outcome

- (c) A trial
(d) An experiment
- 35) When flipping a coin, the coin landing on heads is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 36) The set of all possible outcomes when flipping a coin (heads, tails) is an example of what type of sample space?
(a) Finite sample space
(b) Infinite sample space
(c) Neither finite nor infinite sample space
(d) Both finite and infinite sample space
- 37) The set of all possible outcomes when measuring the height of a person is an example of what type of sample space?
(a) Finite sample space
(b) Infinite sample space
(c) Neither finite nor infinite sample space
(d) Both finite and infinite sample space
- 38) In a game of cards, drawing a card from a standard deck and getting a queen is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 39) In a game of cards, drawing a card from a standard deck and getting a heart or a diamond is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 40) When flipping a coin twice, getting two heads is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 41) When rolling a six-sided die, the die landing on an even number is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment

- 42) When rolling a six-sided die, the die landing on a 5 is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 43) When flipping a coin, the coin landing on tails is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 44) When flipping a coin twice, getting at least one head is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 45) In a game of cards, drawing a card from a standard deck and getting a spade is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 46) When rolling a six-sided die, the die landing on a number greater than 4 is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 47) When flipping a coin twice, getting two tails is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 48) When rolling a six-sided die, the die landing on a 1 is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment
- 49) When flipping a coin, the coin landing on heads is an example of what?
(a) An event
(b) An outcome
(c) A trial
(d) An experiment

50) When flipping a coin twice, getting a head and a tail in any order is an example of what?

- (a) An event
- (b) An outcome
- (c) A trial
- (d) An experiment

51) In a game of cards, drawing a card from a standard deck and getting a club is an example of what?

- (a) An event
- (b) An outcome
- (c) A trial
- (d) An experiment

52) When rolling a six-sided die, the die landing on a number less than 4 is an example of what?

- (a) An event
- (b) An outcome
- (c) A trial
- (d) An experiment

53) When flipping a coin twice, getting a tail and a head in any order is an example of what?

- (a) An event
- (b) An outcome
- (c) A trial
- (d) An experiment

54) In a game of cards, drawing a card from a standard deck and getting a heart is an example of what?

- (a) An event
- (b) An outcome
- (c) A trial
- (d) An experiment