

Logic and Reasoning Fundamentals

Logic · Answer Key · 12 Questions

1. Which of the following describes a set that is mutually exclusive?

- A) Red things and round things
- B) Even numbers and odd numbers**
- C) Tall buildings and old buildings
- D) Happy people and singing people

2. If 'A' is greater than 'B', and 'B' is greater than 'C', which statement must be true?

- A) A is equal to C
- B) C is greater than A
- C) A is greater than C**
- D) B is smaller than C

3. What is the logical term for a sequence of numbers where each term is found by adding a constant value?

- A) Arithmetic progression**
- B) Random set
- C) Geometric sequence
- D) Variable group

4. In a logic puzzle, if 'All cats are mammals' and 'All mammals have lungs', what is the necessary conclusion?

- A) All cats have lungs**
- B) All animals with lungs are cats
- C) Only cats have lungs
- D) No cats have lungs

5. Which sequence follows the rule of doubling the previous number?

- A) 2, 4, 6, 8
- B) 1, 2, 4, 8**
- C) 2, 3, 5, 8
- D) 1, 3, 9, 27

6. A polygon that has exactly three sides and three angles is defined as a:

- A) Quadrilateral
- B) Pentagon
- C) Triangle**
- D) Hexagon

7. What is the missing number in the sequence 100, 95, 85, 70, ?

- A) 60
- B) 55
- C) 50**
- D) 45

8. Which of these is the most specific classification for a square?

- A) Shape
- B) Polygon
- C) Quadrilateral
- D) Rectangle**

9. If a statement is 'true' only when both parts are true, it is known as which logical operator?

- A) AND**
- B) OR
- C) NOT
- D) XOR

10. Which property of addition states that the order of the numbers does not change the sum?

- A) Associative
- B) Distributive
- C) Commutative**
- D) Identity

11. In a group of 10 students, 6 wear glasses and 4 do not. What is the probability of picking a student who wears glasses?

- A) 0.4
- B) 0.5
- C) 0.6**
- D) 0.7

12. A contradiction occurs when:

- A) Two ideas are different
- B) Two statements cannot both be true**
- C) One statement proves another
- D) A pattern is repeated