

Categorical Logic, Syllogisms & Venn Diagrams

DRILL X: SOME, ALL, MOST, NONE

1. In the mystical Forest of Wibblewobble, there are three types of fantastical beings: Fizzbangs, Wobblywoos, and Zizzlezazzles. Some Fizzbangs are also

Wobblywoos, but not all Fizzbangs are Wobblywoos. Every Wobblywoo is a Zizzlezazzle.

Which one of the following is definitely NOT true?

- A. Some Zizzlezazzles are both Fizzbangs and Wobblywoos.
- B. Some Zizzlezazzles are neither Fizzbangs nor Wobblywoos.
- C. All Wobblywoos are either Fizzbangs or Zizzlezazzles or both.
- D. No Zizzlezazzles are Fizzbangs.
- E. Some Fizzbangs are Zizzlezazzles.

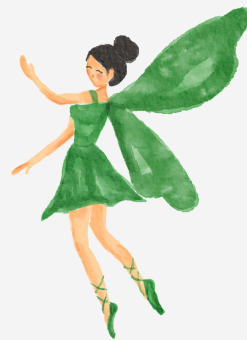
2. A creature can be classified as magical, mythical, both, or neither.

Mermaids and nymphs are not magical.

Fairies and mermaids are both mythical.

Elves and fairies are magical.

Gnomes are neither mythical nor magical




Which of the following is TRUE?

- A. Gnomes are mythical.
- B. Mermaids can be mythical.
- C. Nymphs cannot be mythical.
- D. Elves must be mythical

3. In a class of primary school children, the children who liked cats also liked tortoises. All of the children in the class are age 8. None of the children like budgies, but some of them liked fish. All of the children liked dogs.

Which of the following statements can be concluded?

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- A. All of the 8 year olds like cats.
B. Some of the 8 year olds like fish.
C. All of the 8 year olds like dogs and cats.
D. If a child likes dogs, they also like fish.

4. All beests are alleds. All crears are alleds. All crears are dasts. All beests are dasts. All dasts are alleds.

Which of the following statements can be concluded?

- A. Some crears are beests.
B. All beests are crears.
C. Dasts include beests and crears.
D. There are more crears than dasts.

5. At a space center, there are three types of rockets: Falcon, Delta, and Atlas. The following rules apply to their launches:

- No Falcon rocket is launched without a weather check, but no weather check is needed for Delta and Atlas rockets.
- None of the Delta rockets carry scientific equipment unless they are on a mission to Mars.
- Every Atlas rocket launch is televised, but no Falcon rocket launch is ever televised.

If all of the statements above are true, which one of the following must also be true?

- A. If a rocket launch is televised, it must be an Atlas rocket.
B. If a rocket carries scientific equipment, it is a Delta rocket on a mission to Mars.
C. A Falcon rocket launch requires a weather check and is never televised.
D. If a rocket launch is not televised and carries scientific equipment, it must be a Delta rocket.

6. Most beagles are less than 30 cm tall. Most beagles have short legs. Some animals with short legs make great pets. If an animal is shorter than 30cm, then it will not be a fast runner. Some animals are friendly.

If all of the statements above are true, which one of the following must also be true?

- A. Most great pets have short legs
- B. Some animals shorter than 30 cm have short legs
- C. Most animals with short legs make great pets
- D. Most animals with short legs are beagles



7. Most music critics dislike K-pop music. If someone dislikes K-pop music, they are a snob. Most people who are over the age of thirty dislike K-pop music. Some people who dislike K-pop are huge fans of R&B music.

Each of the following must be true EXCEPT:

- A. Most music critics are snobs.
- B. Most people over the age of thirty are snobs
- C. Some people who dislike K-pop are over the age of thirty
- D. Some music critics are huge fans of R&B music



8. Most successful bassoonists began learning bassoon as youths, though a significant number picked up the instrument later in life. However, no professional bassoonist who ignored the advice of their teachers has ever become successful.

If the statements above are true, then which one of the following must be true?

- A. Not all professional bassoonists who played bassoon as youths ignored the advice of teachers
- B. The most successful bassoonists played the instrument as youths.
- C. The more carefully a bassoonist listens to their coaches' advice, the more likely they are to be successful
- D. All unsuccessful professional bassoonists have ignored the advice of coaches

ANSWERS:

- 1. D
- 2. B
- 3. B
- 4. C
- 5. C
- 6. B
- 7. D
- 8. A