

Absolutely! Here are **10 solved syllogism problems with step-by-step explanations** to help you understand clearly:

1.

Premise 1: All cats are animals.

Premise 2: All animals are living beings.

Conclusion: Therefore, all cats are living beings.

Step-by-step:

- All cats → animals
- All animals → living beings
- So, all cats → living beings (transitive)

Explanation: Since cats are included in animals, and animals are included in living beings, cats must be living beings.

2.

Premise 1: No birds are mammals.

Premise 2: All mammals have hair.

Conclusion: No birds have hair.

Step-by-step:

- No birds → mammals (birds and mammals are exclusive)
- All mammals → have hair
- So, birds cannot have hair (since they are not mammals)

Explanation: Birds are separate from mammals, and mammals have hair, so birds do not have hair.

3.

Premise 1: Some fruits are sweet.

Premise 2: All sweet things are edible.

Conclusion: Some fruits are edible.

Step-by-step:

- Some fruits → sweet
- All sweet things → edible
- Therefore, some fruits → edible

Explanation: Since some fruits are sweet and all sweet things are edible, those sweet fruits are edible.

4.

Premise 1: All roses are flowers.

Premise 2: Some flowers fade quickly.

Conclusion: Some roses fade quickly.

Step-by-step:

- All roses → flowers
- Some flowers → fade quickly
- Cannot conclude some roses fade quickly (no direct link)

Explanation: The conclusion is **not valid** because the “some flowers” that fade quickly may not include roses.

5.

Premise 1: Some boys are students.

Premise 2: All students are disciplined.

Conclusion: Some boys are disciplined.

Step-by-step:

- Some boys → students
- All students → disciplined
- So, some boys → disciplined

Explanation: Since some boys are students and all students are disciplined, those boys who are students are disciplined.

6.

Premise 1: No fish are mammals.

Premise 2: Some mammals are dangerous.

Conclusion: Some fish are dangerous.

Step-by-step:

- No fish → mammals
- Some mammals → dangerous
- No relation between fish and dangerous

Explanation: Conclusion is **invalid** because fish are not mammals; some mammals are dangerous, but no info about fish.

7.

Premise 1: All teachers are educated.

Premise 2: Some educated people are rich.

Conclusion: Some teachers are rich.

Step-by-step:

- All teachers → educated
- Some educated → rich
- Cannot conclude some teachers are rich (no direct link)

Explanation: Conclusion is **invalid** because we don't know if the "some educated people" who are rich include teachers.

8.

Premise 1: All apples are fruits.

Premise 2: No fruits are vegetables.

Conclusion: No apples are vegetables.

Step-by-step:

- All apples → fruits
- No fruits → vegetables
- So, no apples → vegetables

Explanation: Since fruits and vegetables are mutually exclusive, apples cannot be vegetables.

9.

Premise 1: Some pens are blue.

Premise 2: All blue things are expensive.

Conclusion: Some pens are expensive.

Step-by-step:

- Some pens → blue
- All blue things → expensive
- Therefore, some pens → expensive

Explanation: Since some pens are blue and all blue things are expensive, those blue pens are expensive.

10.

Premise 1: All dogs are pets.

Premise 2: Some pets are playful.

Conclusion: Some dogs are playful.

Step-by-step:

- All dogs → pets
- Some pets → playful
- Cannot conclude some dogs → playful (no direct link)

Explanation: The conclusion is **not valid** because the playful pets may not include dogs.

Summary:

- For conclusion to be valid, the connection between premises must be clear.
 - If the conclusion generalizes beyond the given premises, it is invalid.
 - “All” and “No” statements are universal; “Some” statements are particular and cannot generalize.
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Would you like me to provide practice questions for you to try?

Got it! Here are **40 unsolved syllogism problems** for you to practice. Try to find the conclusion (valid or invalid) based on the two premises given:

1.

Premise 1: All cars are vehicles.

Premise 2: Some vehicles are trucks.

Conclusion: ?

2.

Premise 1: No cats are dogs.

Premise 2: Some dogs are pets.

Conclusion: ?

3.

Premise 1: All birds have wings.
Premise 2: Some animals have wings.
Conclusion: ?

4.

Premise 1: Some students are intelligent.
Premise 2: All intelligent people study hard.
Conclusion: ?

5.

Premise 1: All flowers are plants.
Premise 2: No plants are animals.
Conclusion: ?

6.

Premise 1: Some pens are red.
Premise 2: All red things are expensive.
Conclusion: ?

7.

Premise 1: No fish are mammals.
Premise 2: Some mammals are dangerous.
Conclusion: ?

8.

Premise 1: All teachers are educated.
Premise 2: Some educated people are rich.
Conclusion: ?

9.

Premise 1: Some fruits are sweet.
Premise 2: All sweet things are edible.
Conclusion: ?

10.

Premise 1: No vehicles are bicycles.
Premise 2: Some bicycles are fast.
Conclusion: ?

11.

Premise 1: All dogs are pets.
Premise 2: Some pets are playful.
Conclusion: ?

12.

Premise 1: Some books are novels.
Premise 2: All novels are interesting.
Conclusion: ?

13.

Premise 1: No cars are bicycles.
Premise 2: Some bicycles are fast.
Conclusion: ?

14.

Premise 1: All students are disciplined.
Premise 2: Some disciplined people are punctual.
Conclusion: ?

15.

Premise 1: Some doctors are rich.
Premise 2: All rich people are happy.
Conclusion: ?

16.

Premise 1: All lions are animals.
Premise 2: No animals are plants.
Conclusion: ?

17.

Premise 1: Some girls are dancers.

Premise 2: All dancers are artists.

Conclusion: ?

18.

Premise 1: No birds are mammals.

Premise 2: Some mammals are carnivores.

Conclusion: ?

19.

Premise 1: All apples are fruits.

Premise 2: Some fruits are sour.

Conclusion: ?

20.

Premise 1: Some students are lazy.

Premise 2: All lazy people fail exams.

Conclusion: ?

21.

Premise 1: No dogs are cats.

Premise 2: Some cats are pets.

Conclusion: ?

22.

Premise 1: All mountains are high.

Premise 2: Some high places are cold.

Conclusion: ?

23.

Premise 1: Some teachers are strict.

Premise 2: All strict people are respected.

Conclusion: ?

24.

Premise 1: No computers are toys.
Premise 2: Some toys are colorful.
Conclusion: ?

25.

Premise 1: All flowers need sunlight.
Premise 2: Some plants need water.
Conclusion: ?

26.

Premise 1: Some students are athletes.
Premise 2: All athletes are healthy.
Conclusion: ?

27.

Premise 1: No cars are bikes.
Premise 2: Some bikes are fast.
Conclusion: ?

28.

Premise 1: All actors are performers.
Premise 2: Some performers are famous.
Conclusion: ?

29.

Premise 1: Some boys are singers.
Premise 2: All singers are creative.
Conclusion: ?

30.

Premise 1: No fish are birds.
Premise 2: Some birds fly.
Conclusion: ?

31.

Premise 1: All trees produce oxygen.
Premise 2: Some plants produce oxygen.
Conclusion: ?

32.

Premise 1: Some animals are wild.
Premise 2: All wild animals are dangerous.
Conclusion: ?

33.

Premise 1: All cars have engines.
Premise 2: Some engines are powerful.
Conclusion: ?

34.

Premise 1: No chairs are tables.
Premise 2: Some tables are wooden.
Conclusion: ?

35.

Premise 1: Some birds are colorful.
Premise 2: All colorful things are attractive.
Conclusion: ?

36.

Premise 1: All laptops are computers.
Premise 2: Some computers are expensive.
Conclusion: ?

37.

Premise 1: No lions are sheep.
Premise 2: Some sheep are white.
Conclusion: ?

38.

Premise 1: All phones are electronic devices.
Premise 2: Some electronic devices are expensive.
Conclusion: ?

39.

Premise 1: Some trees are tall.
Premise 2: All tall things are visible from far.
Conclusion: ?

40.

Premise 1: No doctors are engineers.
Premise 2: Some engineers are skilled.
Conclusion: ?

Try solving these by applying the logic rules for syllogism. If you want, I can provide the **answers and detailed explanations** afterward! Would you like that?