

Puzzles about sets that can be solved a step at a time.

1. There are 18 students in Ms. Nelson's class. After school on Thursday, there is a Lego club. After school on Tuesday there is a board game club.

- Six of the students don't go to either club.
- Eight students go to Lego club.
- Nine students go to the board game club.
- How many students go to Lego club but not board game club?

2. There are 24 animals in the petting zoo.

- 10 of the animals are not small enough to pick up
- 18 of the animals are furry
- 4 animals are not furry and are not small enough to pick up.

How many animals that are small enough to pick up are not furry?

3. There are 33 toys in the toy box.

- 9 toys are wooden animals.
- 18 toys in the toy box that are not made of wood.
- 12 toys are neither animals nor made of wood

How many toy animals are in the toy box?

4. There are 31 animals in the book.

- All rodents are mammals
- There are 13 pets in the book
- There are 5 rodents in the book
- 2 rodents are also pets
- 9 mammals are also pets
- 5 animals in the book are neither mammals nor pets.

How many mammals in the book are not rodents?

5. A school is taking three music organizations to a festival.

- 30 students sing in the choir
- 40 students play in the orchestra
- 50 students march in the band
- 15 are in choir and orchestra
- 10 are in orchestra and the band
- 14 are in choir and band
- 5 are in all three groups

How many students will need seats on the bus?