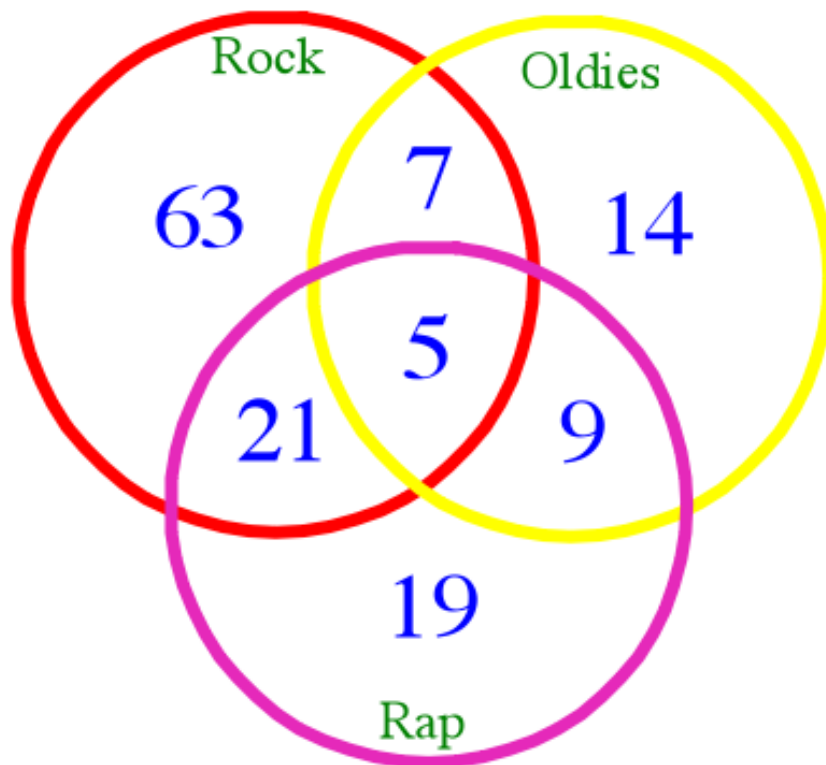


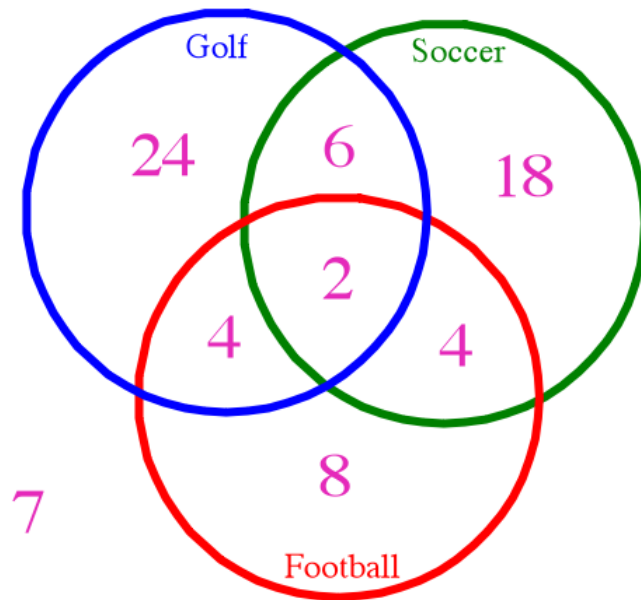
# Venn Diagrams

## Music Preference



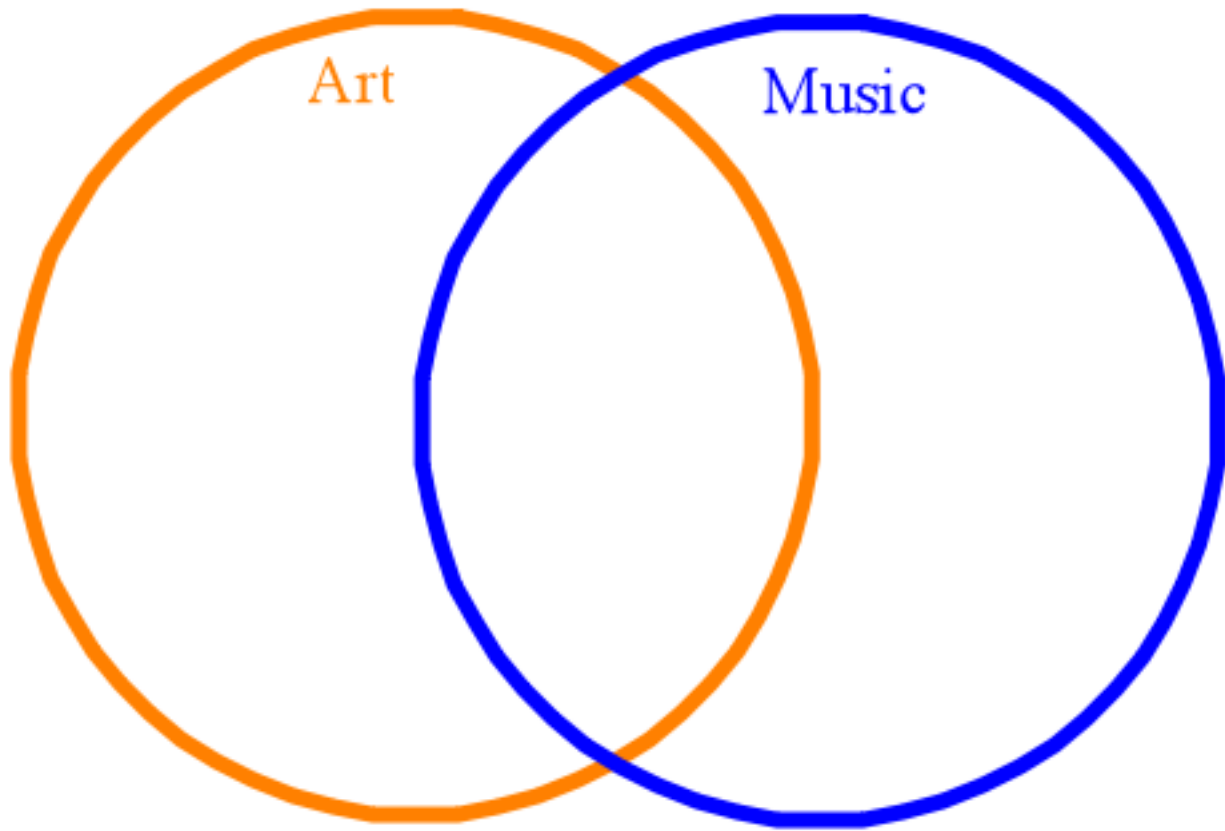
- How many students like all three types of music?
- How many student like oldies?
- How many students like rap and rock?
- How many students like rap but not rock?
- How many students like only rock?

# Sports Preferences



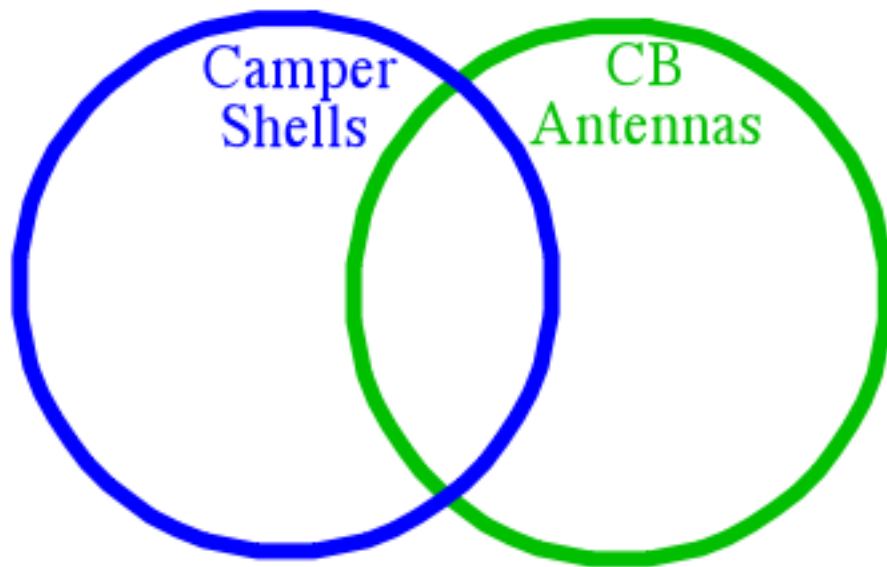
- How many students play all three sports?
- How many students play only soccer?
- How many students play golf and football?
- How many students play soccer and football but not golf?
- How many students play soccer but not golf?
- How many students were surveyed?

## Schedules



100 students' schedules were looked at.  
Every student took either art, music or both.  
56 students took art.  
24 students took both art and music  
How many students took only music?

# Pickup Trucks



Gonzalo sits down on the steps in front of his house and begins counting the pickup trucks that go past.

18 trucks passed

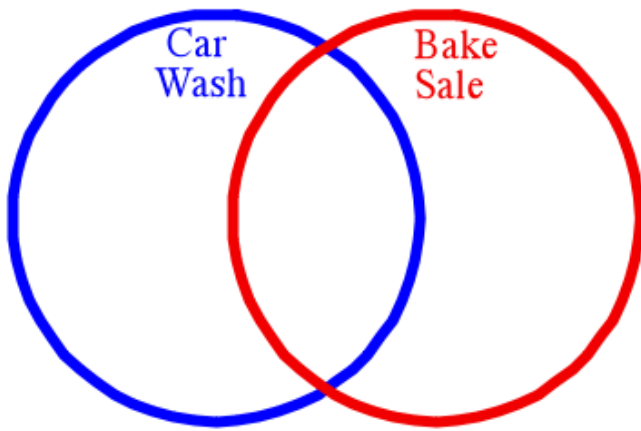
17 have camper shells

8 have CB antennas

7 have both

# Fund Raiser

Mrs. Lopez's 6th grade class has 29 students.



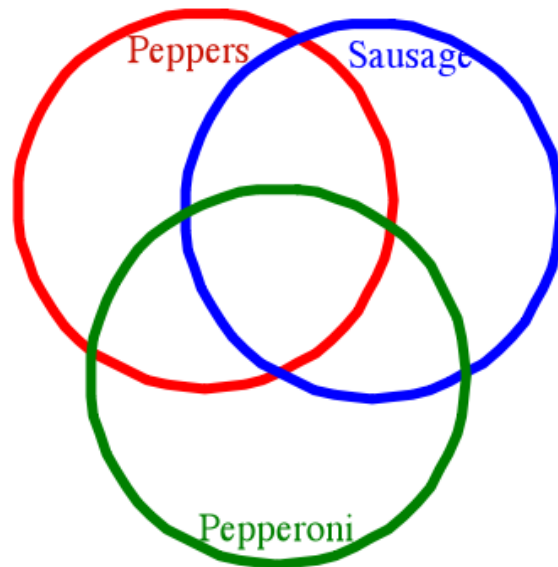
17 students formed a group to have a car wash.

16 students formed a group to have a bake sale.

9 students belong to both groups.

How many students belong to neither group?

# Pizza Lunch



The school is organizing a pizza party. 110 pizzas were ordered. Students could choose to have plain cheese, one topping, two toppings, or three additional toppings.

25 with sausage

45 with pepperoni

48 with peppers

10 with sausage and peppers

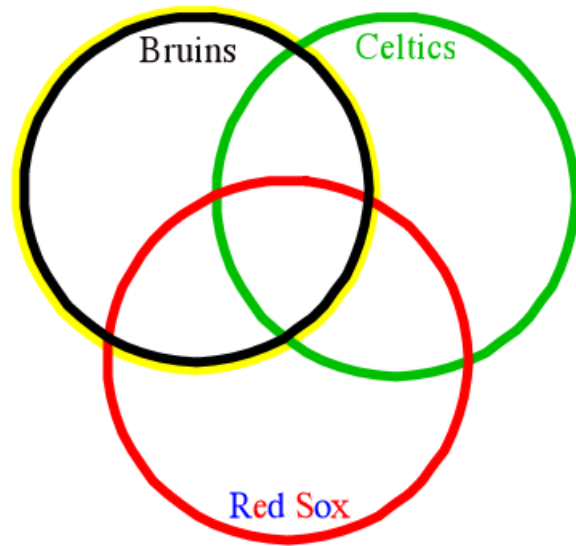
8 with pepperoni and peppers

6 with sausage and pepperoni

5 with all three toppings

How many pizzas were ordered with no additional toppings?

# Boston Sports



Students were asked if they watch the Boston teams play.

4 students watch the Bruins, Celtics, and Red Sox.

9 students watch the Bruins and Celtics.

11 students watch the Celtics and Red but not the Bruins.

6 watched only the Bruins.

There were 75 students polled in all.

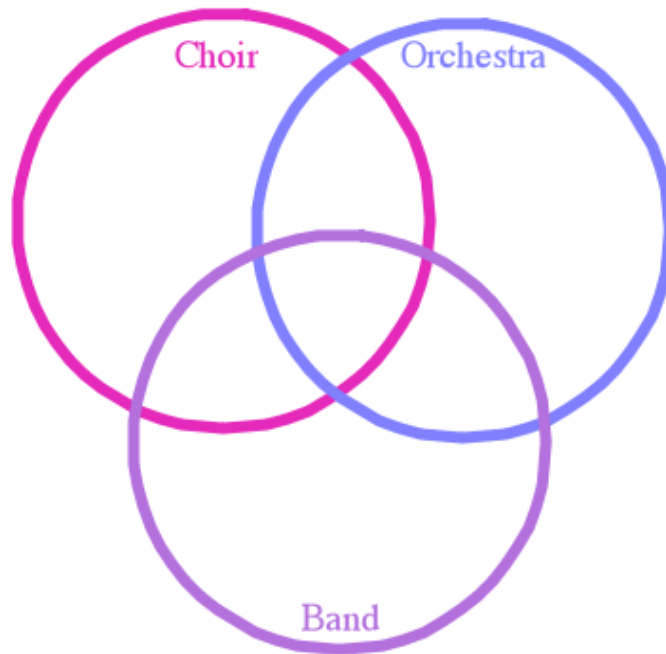
26 watched the Bruins

30 liked the Celtics.

How many liked the Red Sox?

# Music Festival

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 student belong to the choir and the orchestra

10 students belong to the orchestra and the band

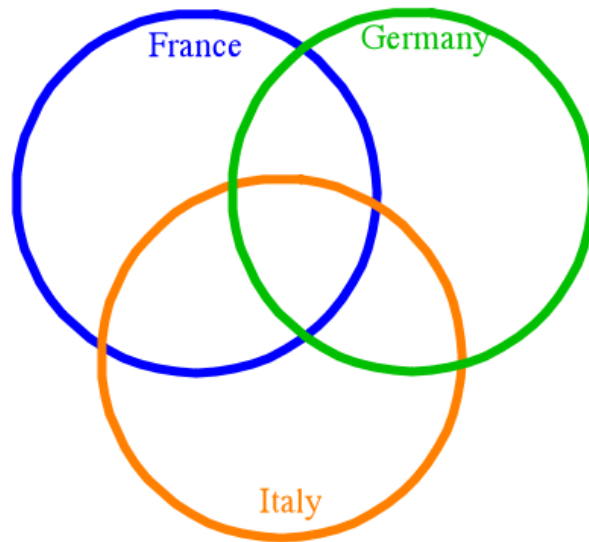
14 students belong to the choir and the band

5 students belong to all three



# Geography

The geography class had  
30 total students in it.



16 wanted to visit France

16 wanted to visit Germany

11 wanted to visit Italy

5 wanted to visit France and Italy

3 wanted to visit all three

5 wanted only Italy

8 wanted only Germany

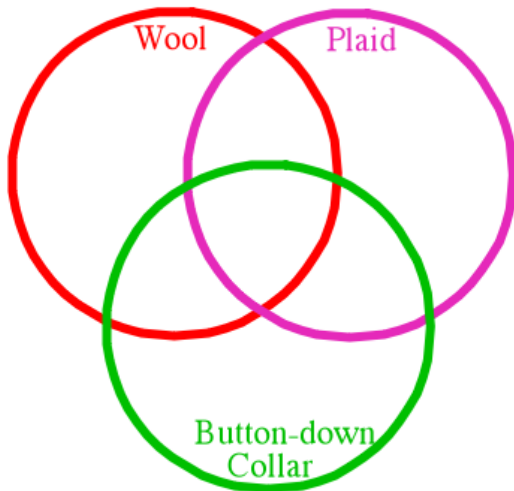
How many wanted France only?

## Challenge:

### \*Shirts

TOPS, Inc. has a sale table with 49 shirts.

Every shirt is plaid, wool, or has a button-down collar.



There were twice as many plaid shirts as shirts with button-down collars. 21 of the plaid shirts are not wool. There are 12 shirts with button-down collars. There is only one wool plaid shirt with a button-down collar. Half of all of the shirts with button-down collars are wool. Every plaid shirts with a button-down collar is wool.