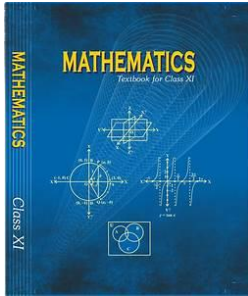## Analyzing Surveys Using Venn Diagrams:

Examples:

1. A survey of 100 students regarding their semester courses resulted in the following:
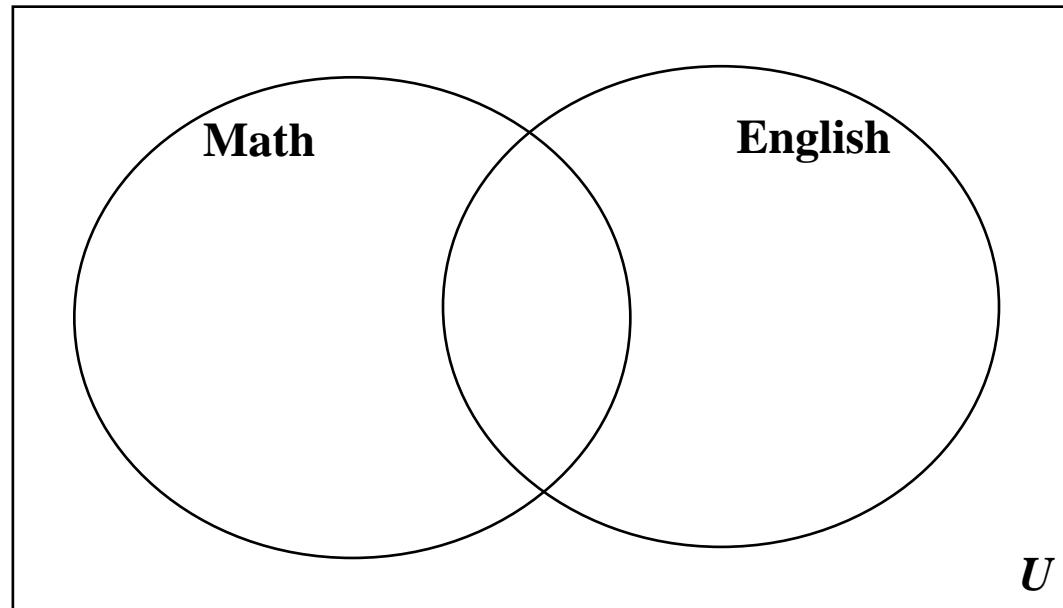

48 students are taking a Math class
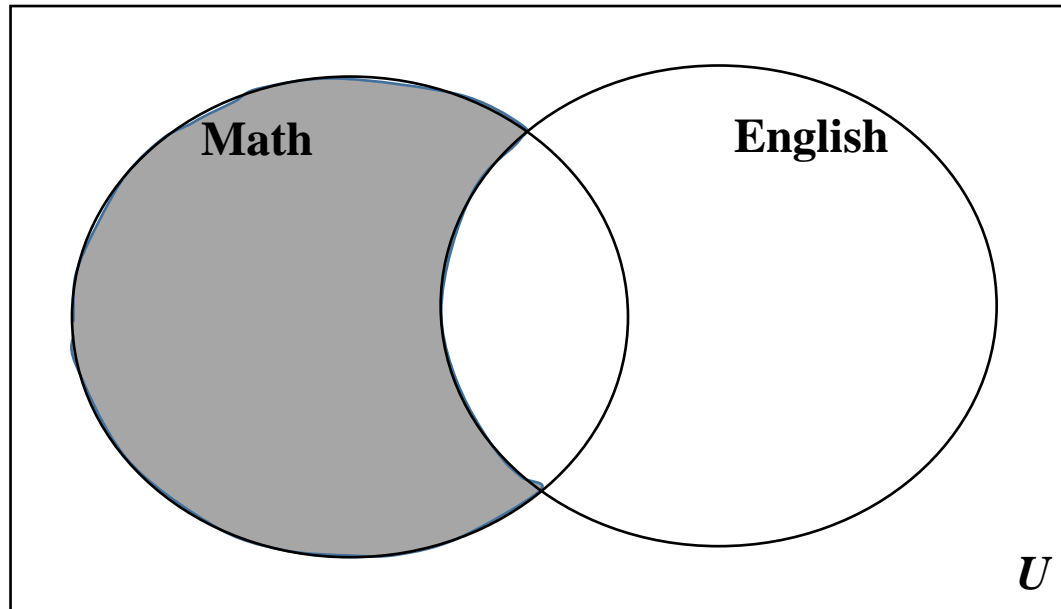
53 students are taking an English class

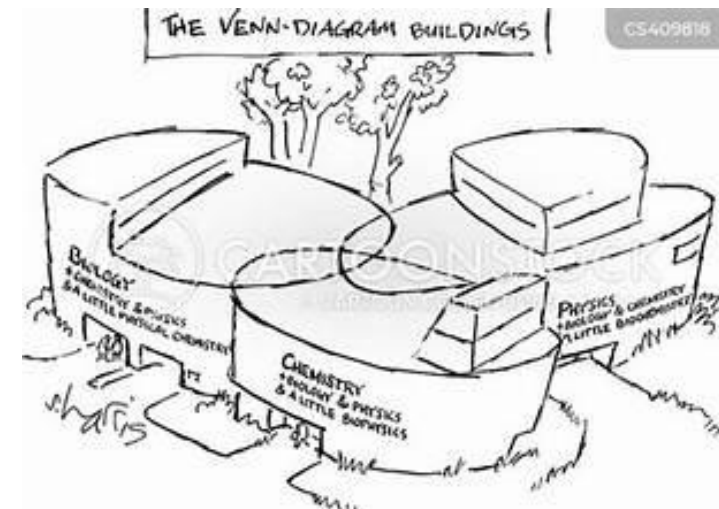**31 students are taking both Math and English classes**
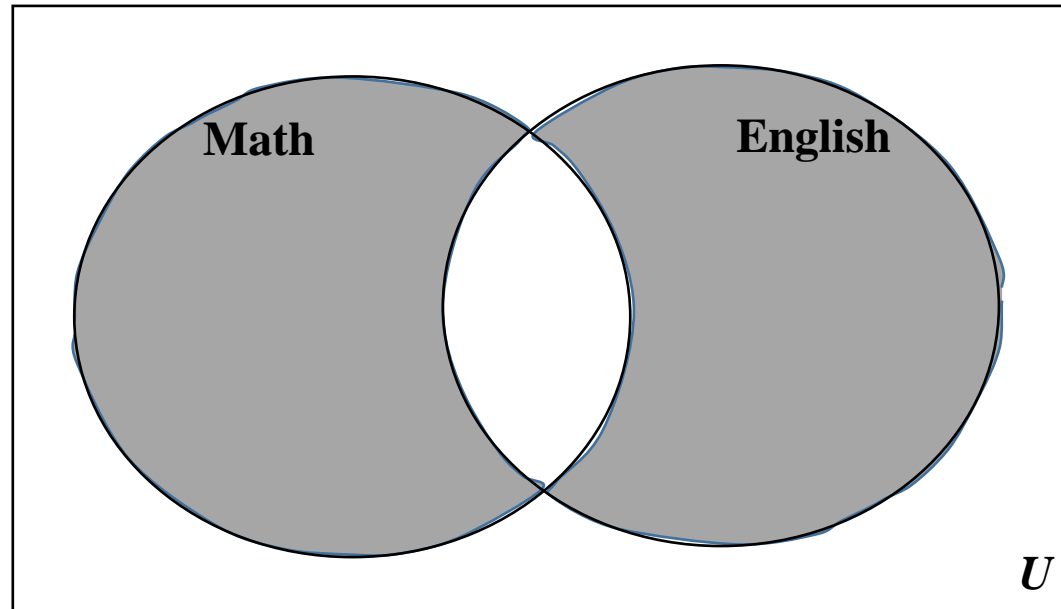

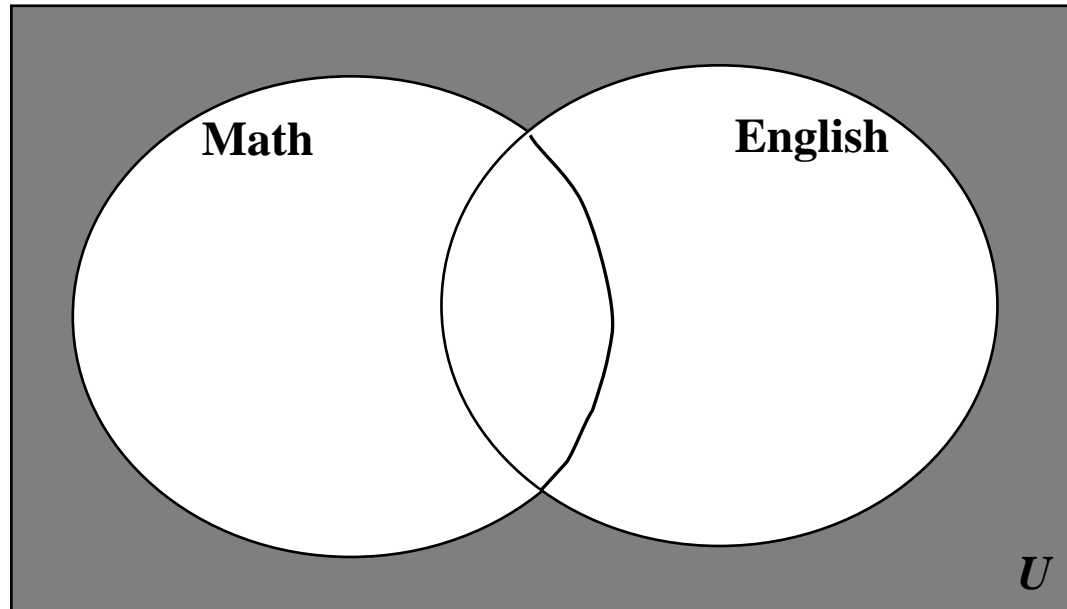**a) Complete the following Venn Diagram of the survey.**

Math   English

U

b) How many of the students are taking only a Math class?

c) How many of the students are taking only one of the two classes?

Math

English

U

d) How many of the students aren't taking a Math or English class?

2. A survey of 180 students resulted in the following:

43 students were in a campus club

52 played in a campus sport

35 were in a campus tutorial program

13 were in a club and a sport
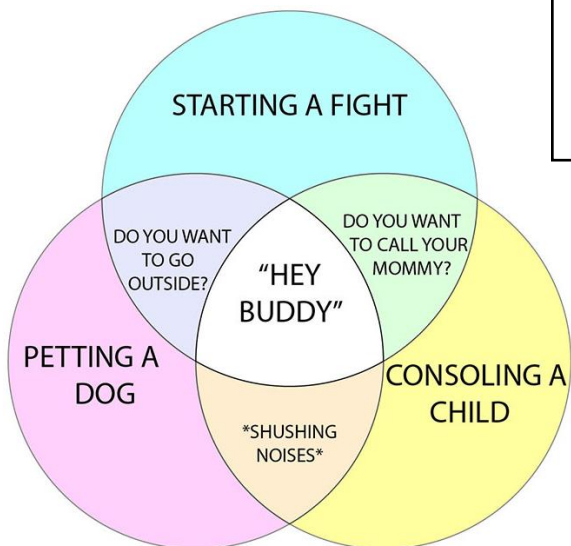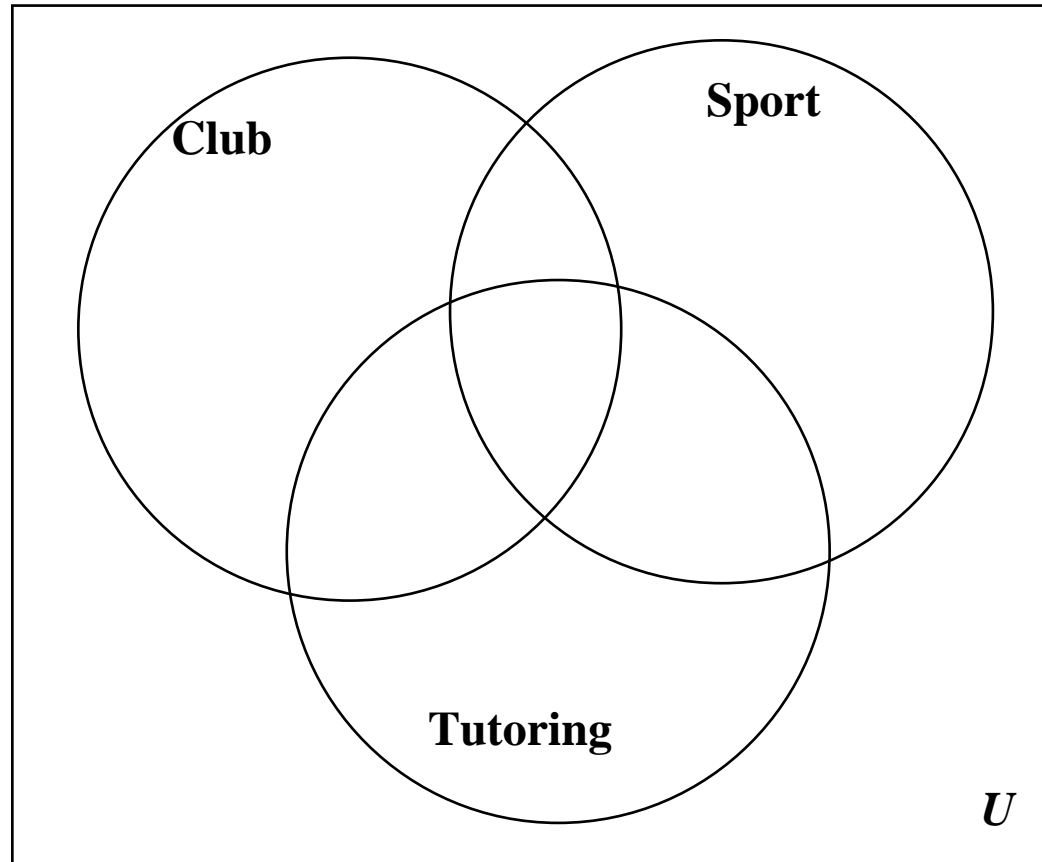
14 were in a sport and a tutorial program
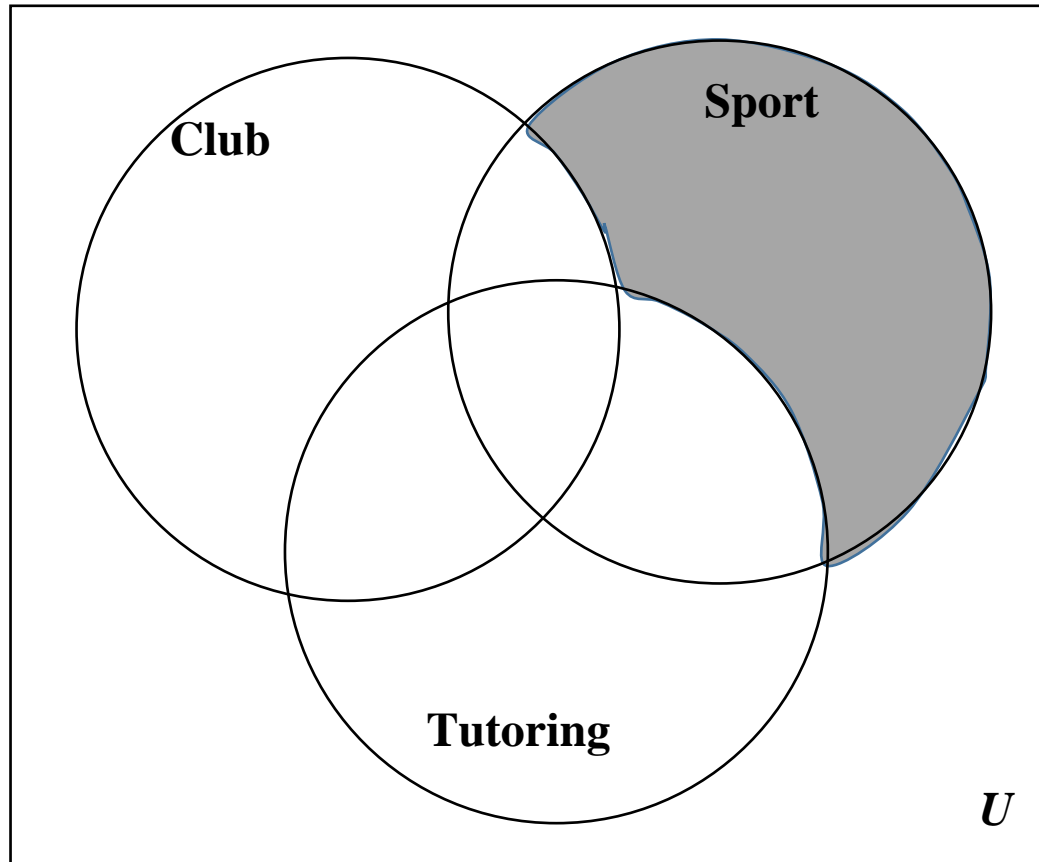
12 were in a club and a tutorial program

5 were in all three activities

a) Complete the following Venn Diagram of the survey.
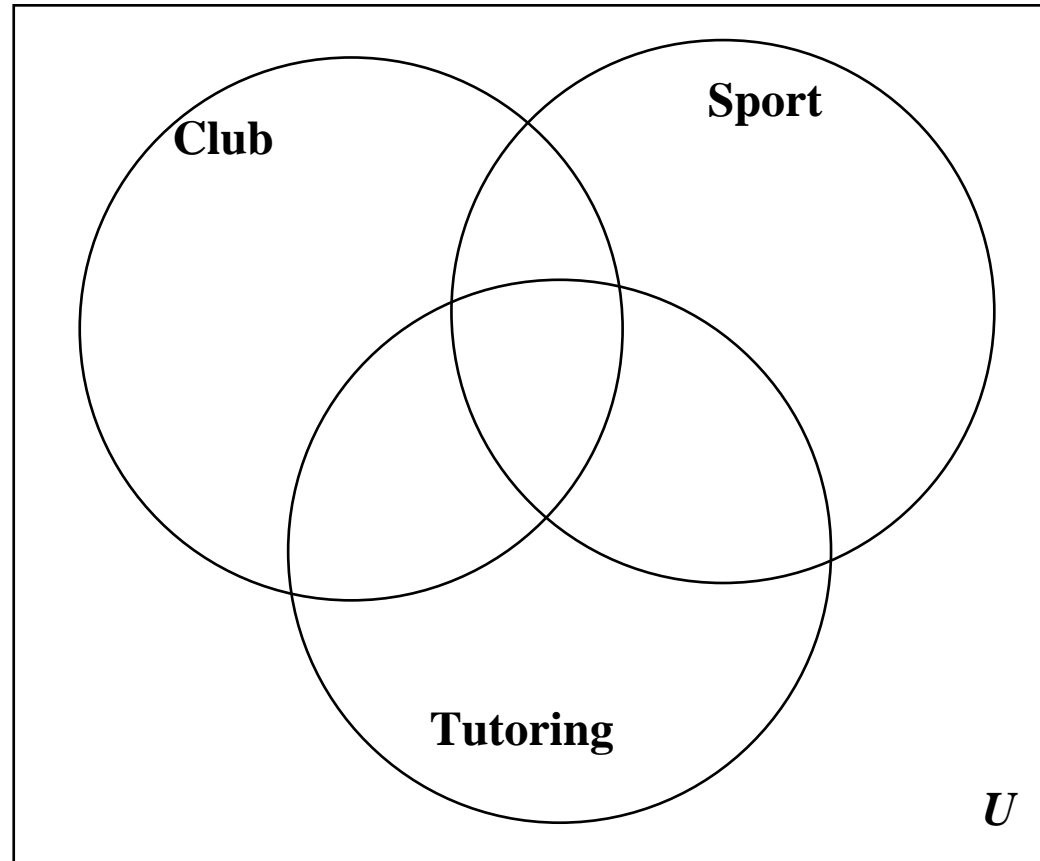

Club

Sport

Tutoring

U

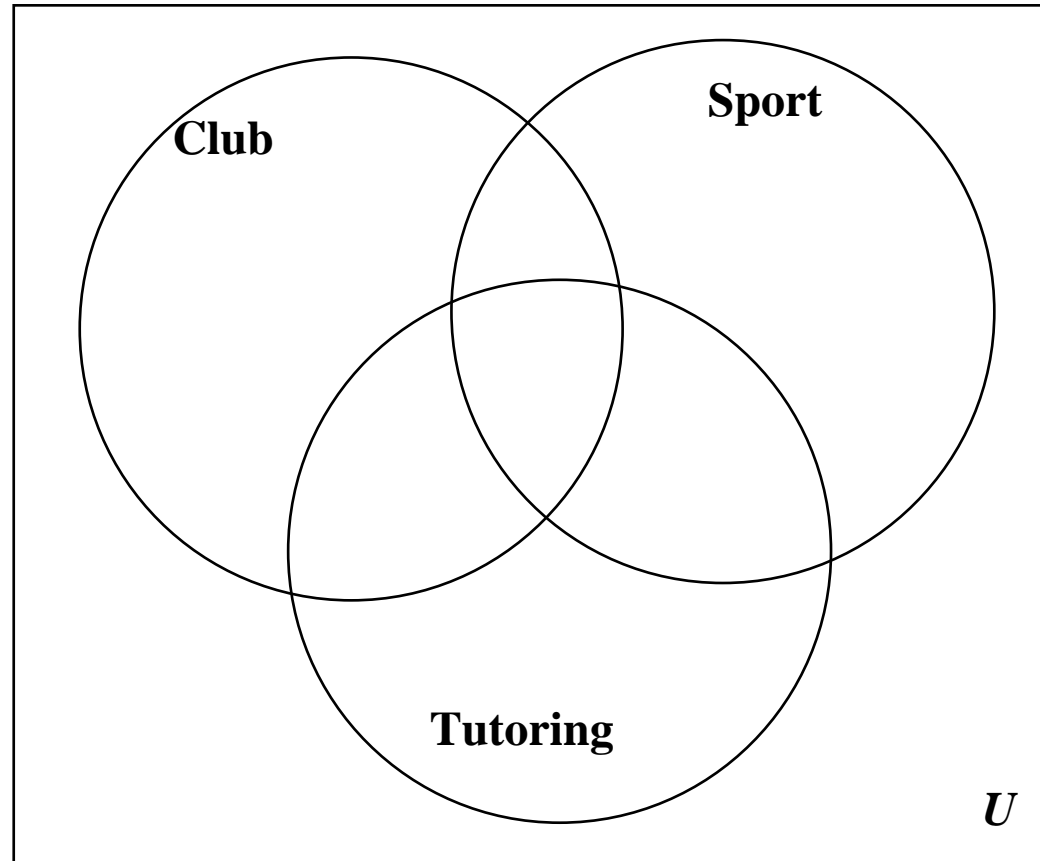**b) How many participated only in a sport?**

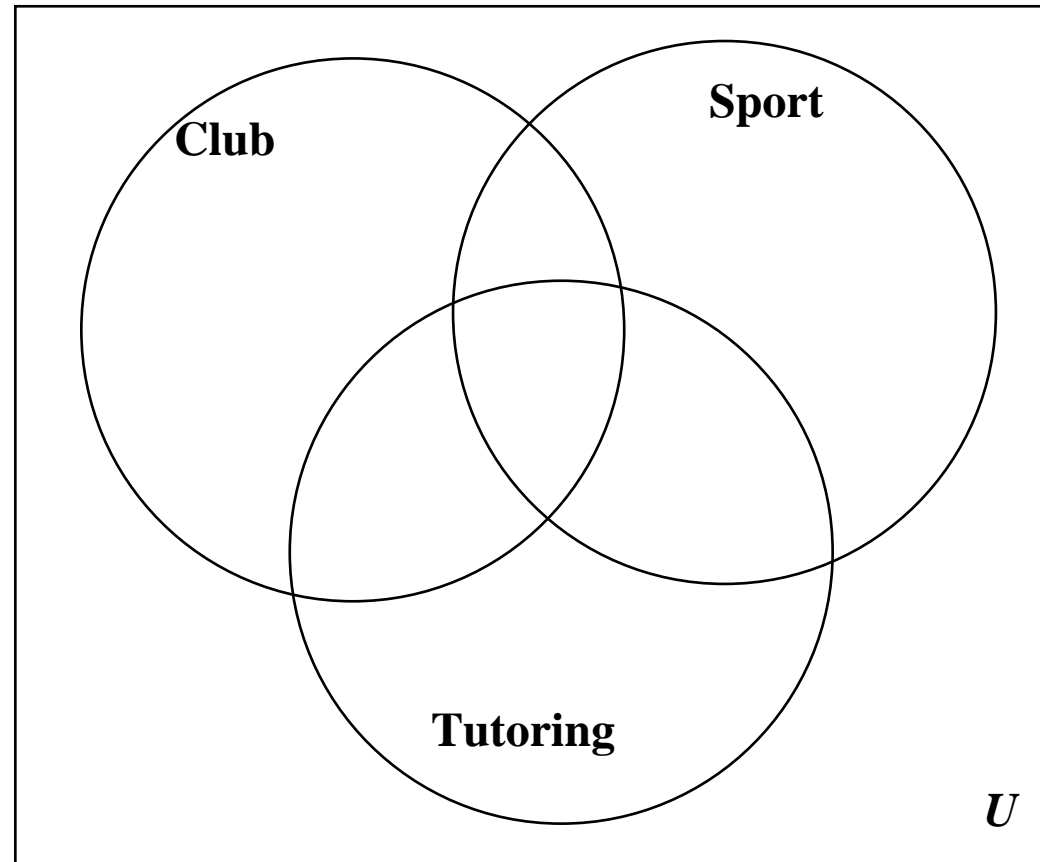**c) How many participated in a club and a sport, but not a tutoring program?**
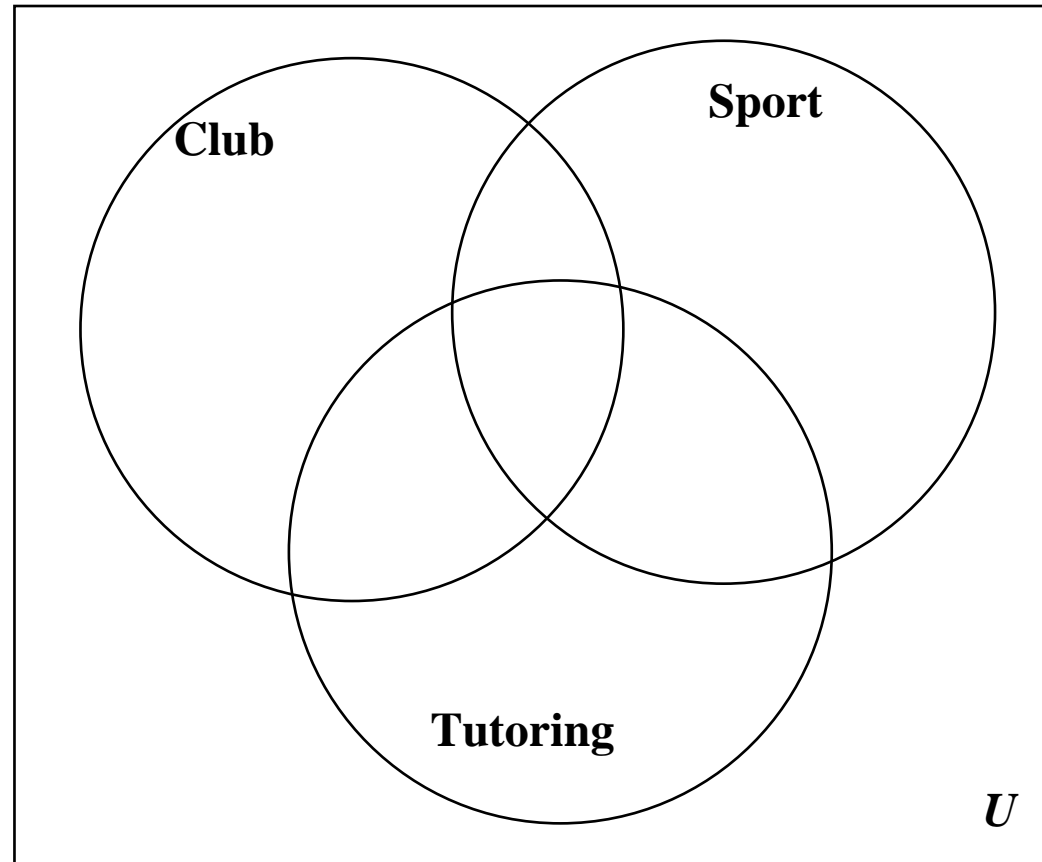
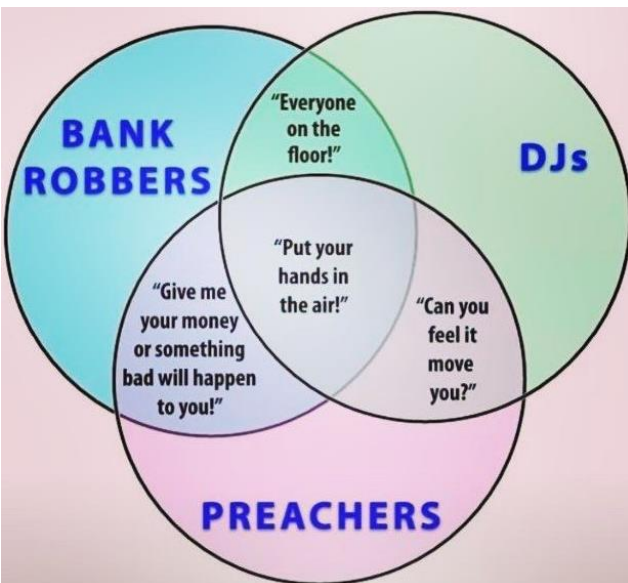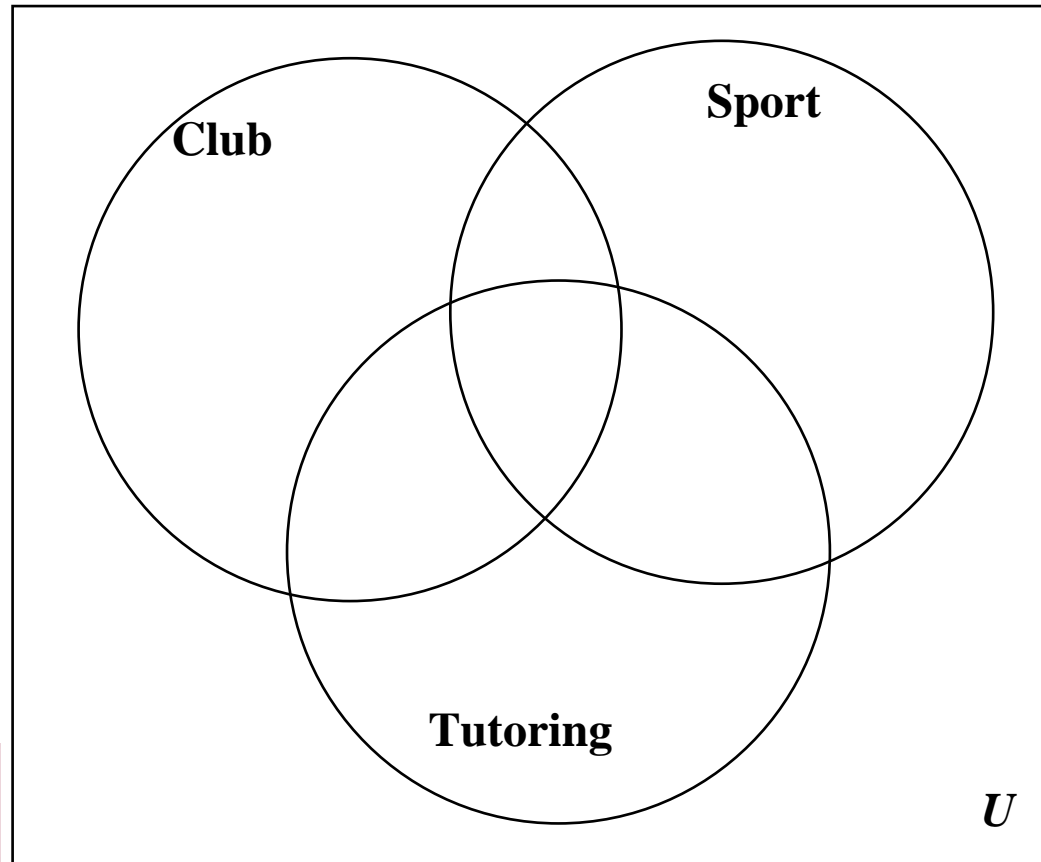**d) How many participated in a club or a sport, but not a tutoring program?**

e) How many participated in exactly one of the three activities?

f) How many participated in at least two of the activities?
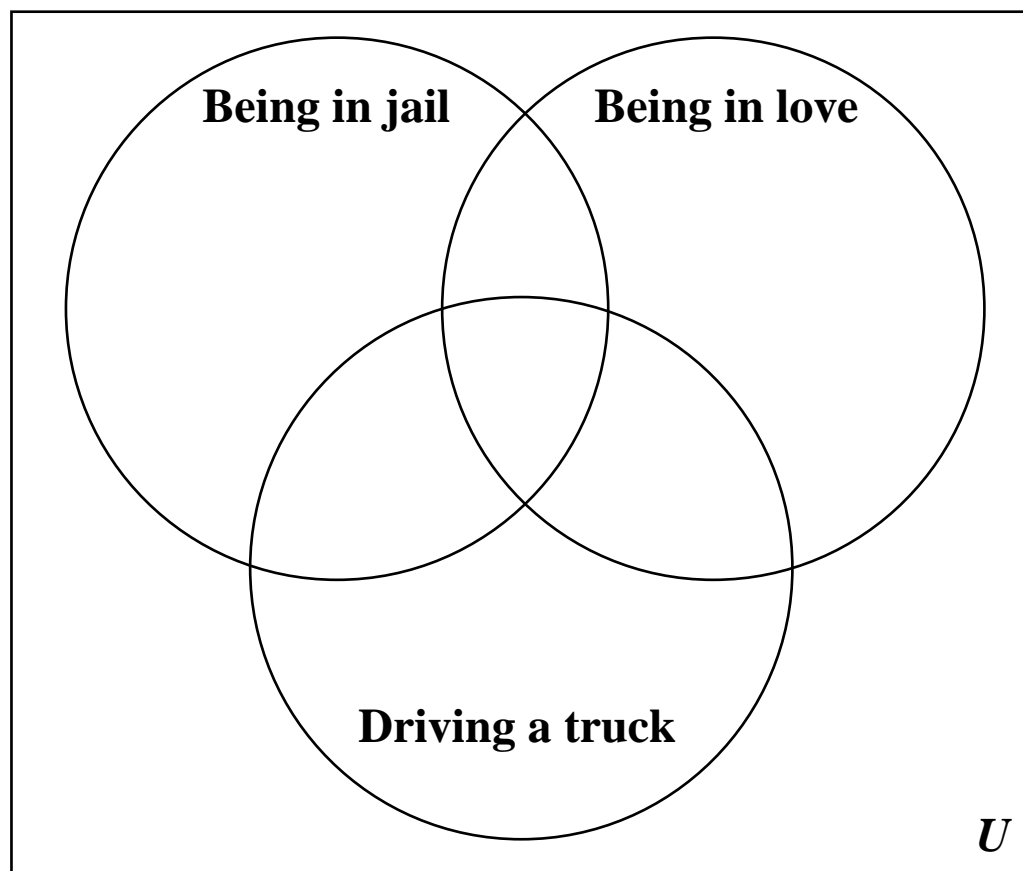
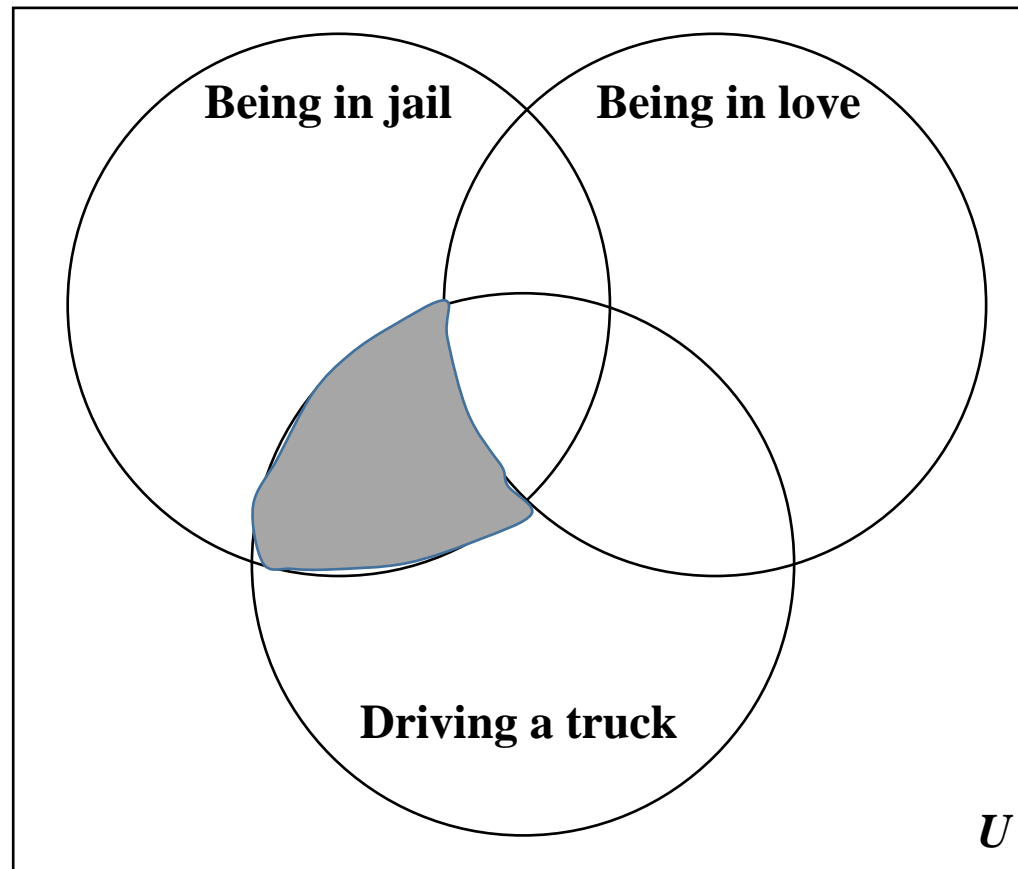**g) How many didn't participate in any of the three activities?**

Club

Sport

Tutoring

U

3. A survey of 80 country music songs resulted in the following: 36 songs are about being in jail, 44 songs are about being in love, 26 songs are about driving a truck, 18 songs are about being in jail and being in love, 14 songs are about being in jail and driving a truck, 11 songs are about being in love and driving a truck, and 4 songs are about being in jail and being in love and driving a truck.
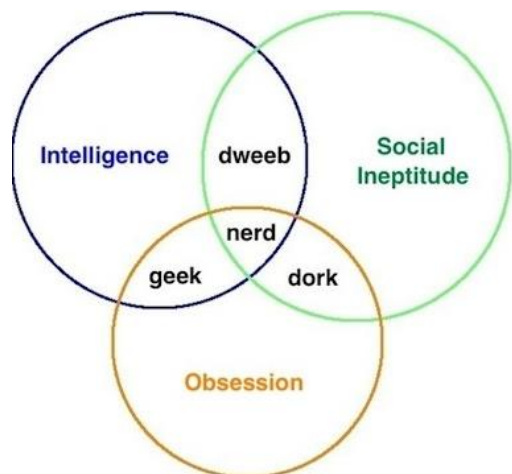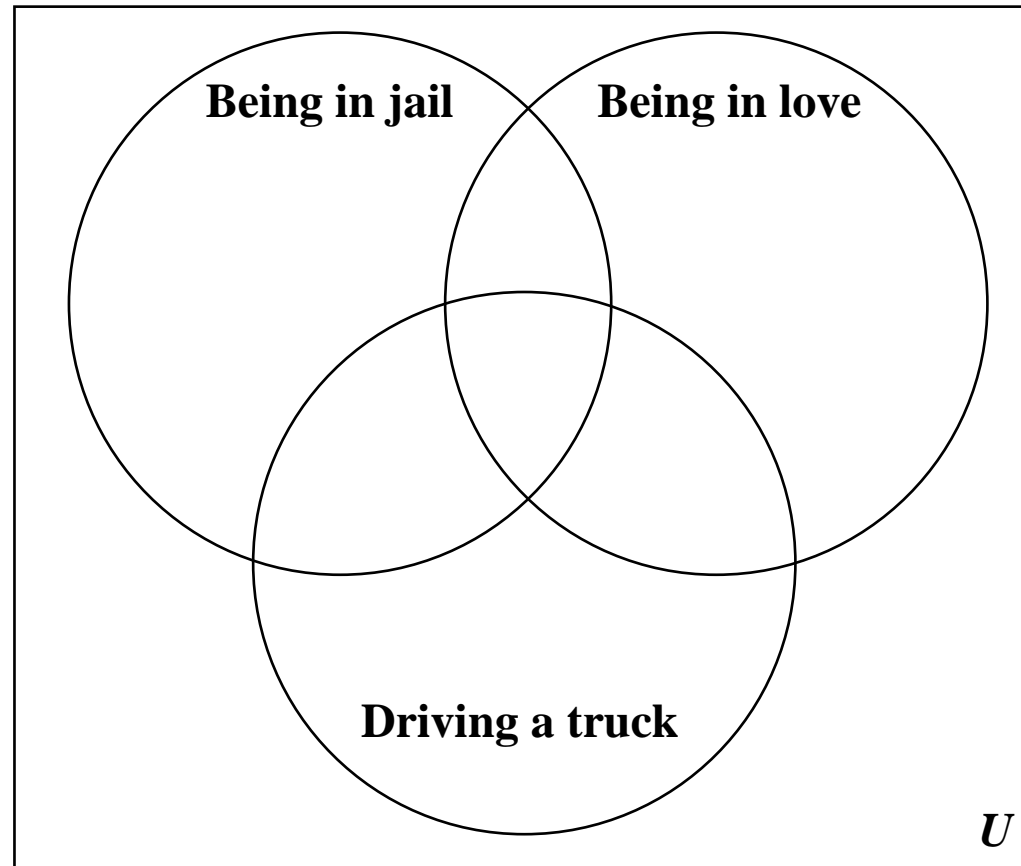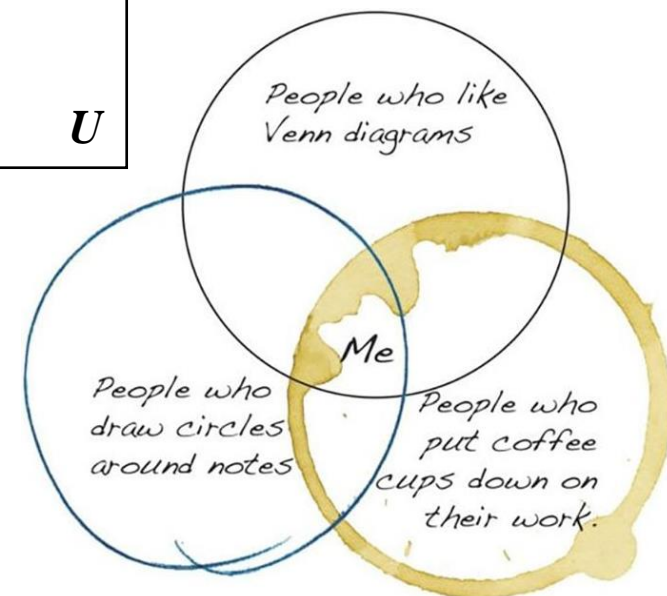
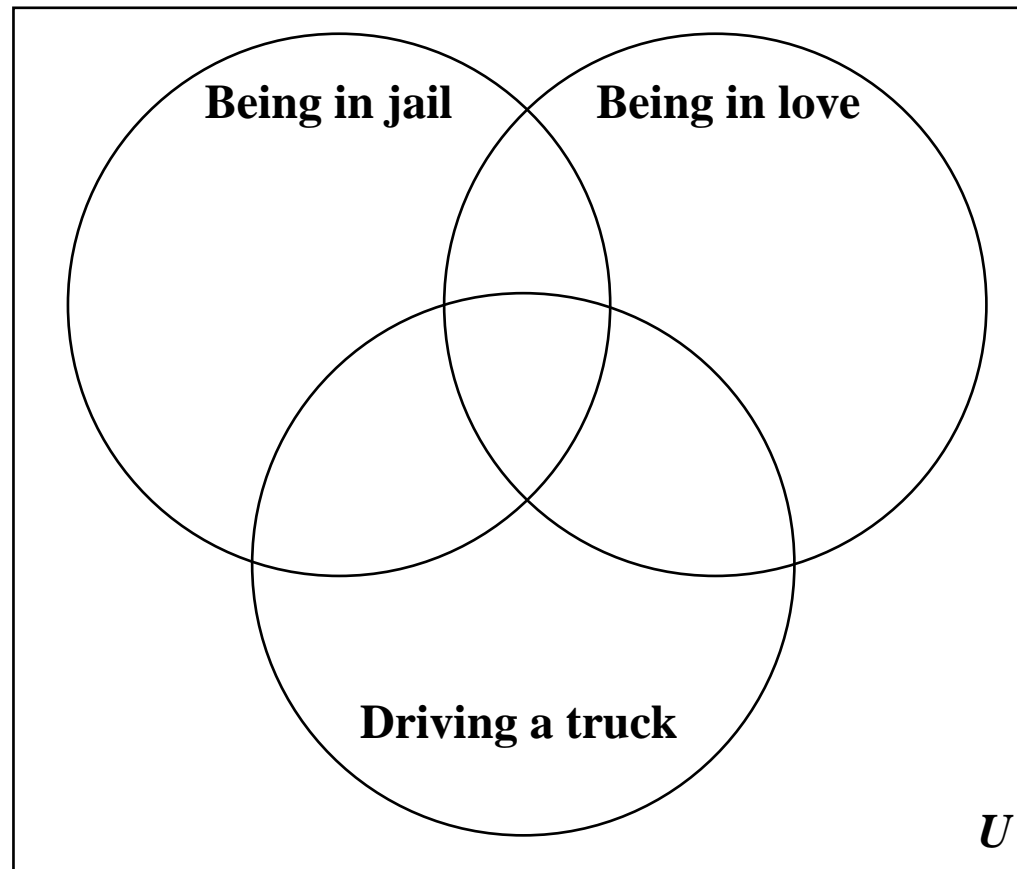a) Complete the following Venn Diagram.

Being in jail   Being in love

Driving a truck

U

b) How many songs are about being in jail and driving a truck, but not being in love?

c) How many songs are only about driving a truck?

Being in jail

Being in love

Driving a truck

U

Intelligence

dweeb

Social
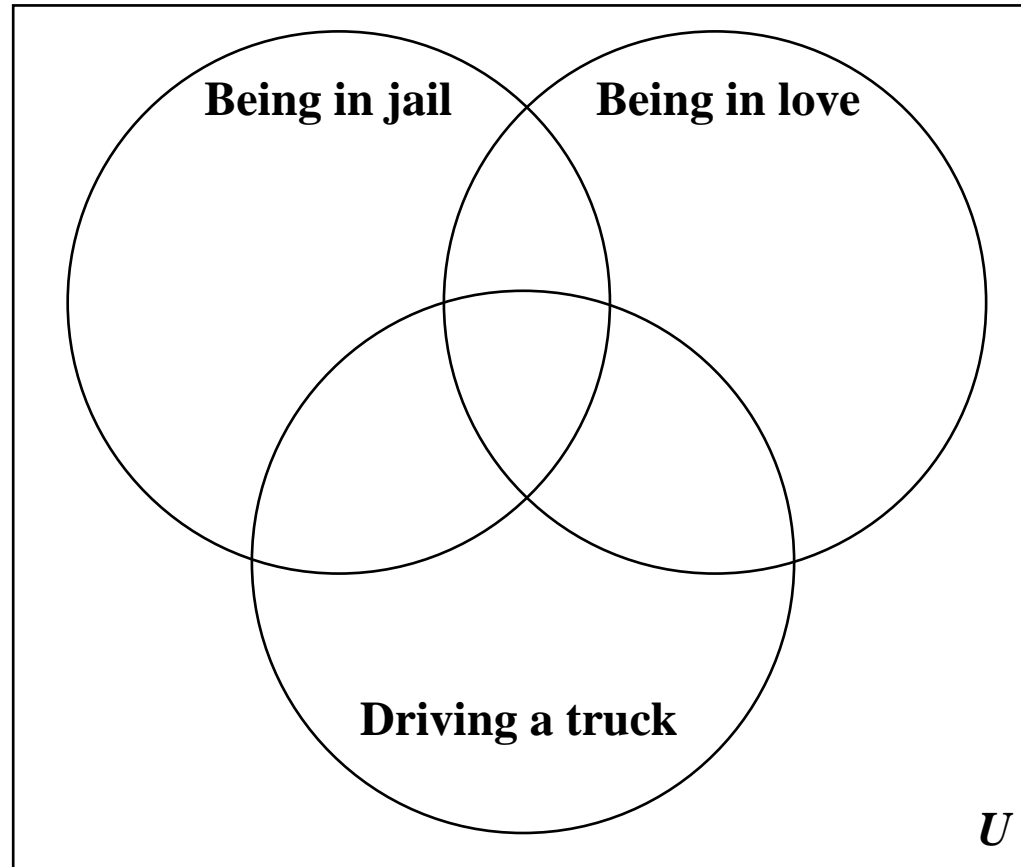Ineptitude

nerd

geek

dork

Obsession

d) How many songs are not about being in jail or being in love, or driving a truck?

e) How many songs are not about driving a truck?

f) How many songs are about exactly two of the topics?

Being in jail

Being in love

Driving a truck

U