1. A number of people were interviewed to find out who buys products $A$, $B$, and $C$ regularly. The results are shown in the diagram below.

(a) How many buy product $B$?
(b) How many buy product $C$ but not $B$?
(c) How many do not buy product $C$?
(d) How many buy product $A$ or $C$, but not $B$?
(e) How many people were interviewed?

2. The number of students taking algebra ($A$) or chemistry ($C$) is shown in the diagram below. If the total number of students surveyed to obtain the data is 250 then

(a) $n(A' \cup C') =$

(b) $n(A \cup C') =$
3. A chicken farmer surveyed his flock with the following results. The farmer has:

- 9 fat red roosters
- 2 fat red hens
- 27 fat roosters
- 36 fat chickens
- 7 thin brown hens
- 18 thin brown roosters
- 6 thin red roosters
- 5 thin red hens.

(a) How many roosters has the farmer?
(b) How many hens has the farmer?
(c) How many fat hens has the farmer?
(d) How many thin roosters has the farmer?

Chicken are roosters or hens. Assume that red and brown are the only two colors, and that thin is the same as not fat.

[Instructions: Draw a Venn diagram with circles for fat, for male (=rooster), and for red.]