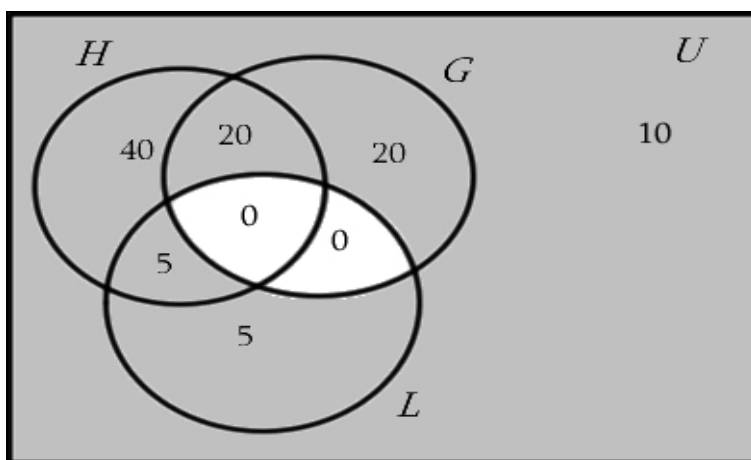


A survey of 100 people about their television-watching found the following data:

- 65 people watch “The Hills”
- 10 people watch “Lost”
- 40 people watch “Gossip Girl”
- 5 people watch “The Hills” and “Lost”
- 20 people watch “The Hills” and “Gossip Girl”
- 0 people watch “Gossip Girl” and “Lost”

Let H be the people who watch “The Hills,” G be the people who watch “Gossip Girl,” and L be the people who watch “Lost.”

[3 points] 1. Draw a Venn diagram to represent the data in the survey. (Hint: You can figure out what $H \cap G \cap L$ is by looking at $G \cap L$.)



[2 points] 2. In your Venn diagram, shade in the portion corresponding to $(G \cap L)^C$.

–[See above.]

[2 points] 3. How many people in the survey did not watch any of the three shows?

–10 people

[2 points] 4. Give a description in words of what is meant by $L \cup (H^C)$.

–Those who either watched “Lost” or did not watch “The Hills”

[1 point] 5. Name two sets from the survey which are disjoint.

–There are many possibilities; the most obvious is the sets L and G are disjoint, because their intersection is \emptyset .