

Three Rings

- Goals**
- Organize data in three-ring Venn diagrams.
 - Identify among data relationships.
 - Use logical reasoning to solve problems.

Notes Suggest to students that they write the number of people in the appropriate regions of the rings and then use those numbers to check that their answers match the responses to the surveys.

Solutions to all problems in this set appear on page 31.

Three Rings I

Questions to Ask

- Which regions are in the Soccer ring? (Region A, Region B, Region D, and Region E)
- How many people like soccer? (25)
- What does Region E represent? (the number of people who like all three sports)
- How many people like all three sports? (4)
- How many people are in Region F? (6) How do you know? (Region E and Region F represent the number of people who like both baseball and basketball. Since $E + F = 10$ and $E = 4$, then $F = 10 - 4$, or 6.)

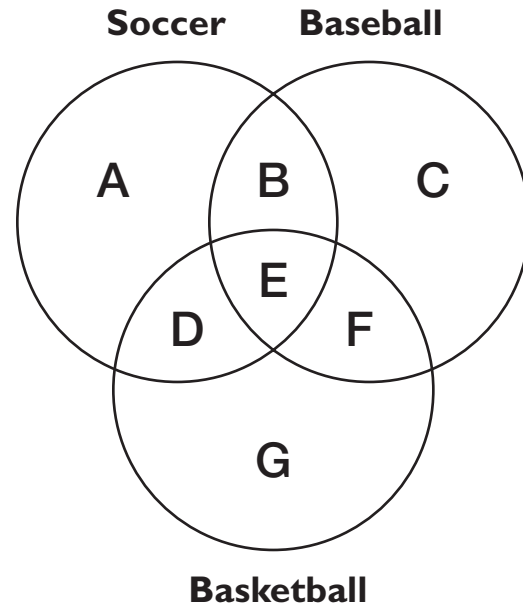
Solutions

- 5
- 7
- 10
- 9
- 4
- 6
- 9
- Possible answer: Since $E = 4$ and $B + E = 11$, then $B = 11 - 4$, or 7. Also, $E + F = 10$. Since $C = 27 - B - (E + F)$, then $C = 27 - 7 - 10$, or 10.

Three Rings 1

John asked 50 people, “Do you like soccer, baseball, or basketball?”
The responses are listed.

50 People Responded
4 like all three sports
11 like soccer and baseball
13 like soccer and basketball
10 like baseball and basketball
25 like soccer
27 like baseball
28 like basketball



- How many people are in Region A? _____
- How many people are in Region B? _____
- How many people are in Region C? _____
- How many people are in Region D? _____
- How many people are in Region E? _____
- How many people are in Region F? _____
- How many people are in Region G? _____

- How did you figure out the number of people in Region C?
