

# Activity 7 Assessment

## Exploring Probability Using Venn Diagrams

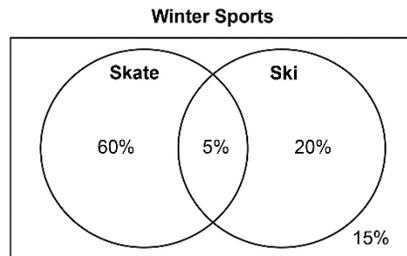
### Exploring Probability Using Venn Diagrams

Understands that the sum of all possible probabilities is 100%

When tossing 2 coins, the possible outcomes are:  
 H, H; T, T; T, H; H, T  
 The probability of 2 heads is 25%.  
 The probability of 2 tails is 25%.  
 The probability of 1 heads and 1 tails is 50%.  
 The sum of the probabilities is:  
 $25\% + 25\% + 50\% = 100\%$

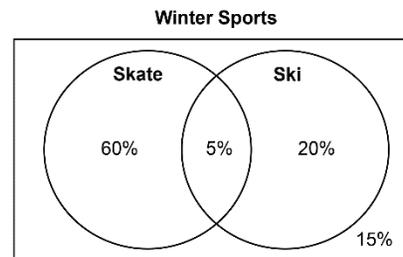
Explains a Venn diagram with probabilities

Students in a Grade 8 class were asked whether they skate or ski.



65% of students skate.  
 25% of students ski.  
 5% of students skate and ski.  
 15% of students neither skate nor ski.

Calculates percents in a Venn diagram

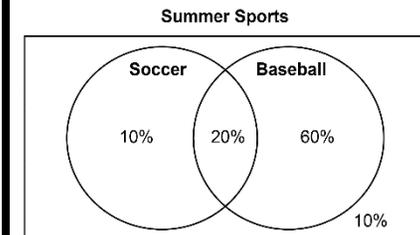


There are 25 students in the class.  
 About how many students neither skate nor ski?  
 $15\% \text{ of } 25$   
 $= 0.15 \times 25 = 3.75$   
 About 4 students neither skate nor ski.

Uses and explains how a Venn diagram represents probabilities

I asked students in my class whether they played baseball or soccer in the summer.  
 Here are the results.  
 30% play soccer.  
 80% play baseball.  
 20% play baseball and soccer.  
 10% play neither sport.

The percents on the Venn diagram add to 100%, but the sum of the separate percents above is greater than 100% because the 20% who play both sports is added two more times.



### Observations/Documentation