|  |
| --- |
| **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, TThe 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 probabilitiesStudents 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 diagramThere are 25 students in the class.About how many students neither skate nor ski? 15% of 25 = 0.15 × 25 = 3.75About 4 students neither skate nor ski. | Uses and explains how a Venn diagram represents probabilitiesI 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** |
|  |  |  |  |