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| **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% of 25  = 0.15 × 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** | | | |
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