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| **Exploring Independent and Dependent Events** |
| Understands and explains independent eventsThe outcome of one event does not affect the outcome of the other event, for example, removing a marble from a bag, then replacing it before a second marble is taken. | Identifies the sample space for two independent eventsA marble is taken from the bag, replaced, and then a second marble is taken. What is the sample space? | Understands and explains dependent events and their sample spaceThe outcome of one event affects the outcome of the other event, for example, removing a marble from a bag, and not replacing it before a second marble is taken.The sample space is: Y, R; Y, B; R, Y; R, B; B, Y; B, R | Determines the probability of two events For the two independent events, the theoretical probability of picking redand blue marbles is: $\frac{2}{9}$For the two dependent events, the probability of picking red and blue marbles is: $\frac{2}{6}$ = $\frac{1}{3}$ |

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| **Observations/Documentation** |
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