

Activity 7 Assessment

Exploring Independent and Dependent Events

Exploring Independent and Dependent Events

Understands and explains independent events

The 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 events



A marble is taken from the bag, replaced, and then a second marble is taken.

What is the sample space?

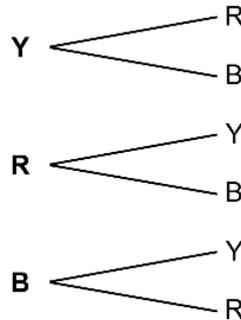
	Y	R	B
Y	Y, Y	Y, R	Y, B
R	R, Y	R, R	R, B
B	B, Y	B, R	B, B

Understands and explains dependent events and their sample space

The 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.



First marble **Second marble**



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 red and 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			