Name _____ Date _____

Determining Dependent and Independent Events - Guided Lesson Explanation

Explanation#1

The events of rolling an **even** number and **5** are independent.

Find P(even). The dice has 6 sides, numbered 1, 2, 3, 4, 5, 6. The even numbers are 2, 4, 6. There are 3 even numbers.

P(even) = $\frac{3}{6}$

Find P(5).

P (5) = $\frac{1}{6}$

Find P(even, 5).

P(even, 5) = P(even) × P(5)

= $\frac{3}{6} \times \frac{1}{6}$

= $\frac{3}{36}$

Write your answer as a decimal. Then convert your answer to a percentage.

$\frac{3}{36}$ = 0.083 = 8.33%

Explanation#2

Two events are dependent if the outcome of the first event affects the outcome of the second event.

These two events are dependent because buying the microwave changed her decision on the necklace. Here the first event affects the second one.

Explanation#3

Two events are dependent if the outcome of the first event affects the outcome of the second event.

The two events are dependent. Robin does not put the first ball back, so his first pick affects which balls are left for his second pick.