



**Solutions**

**Algebra II Journal**  
**Module 6: Conditional Probability**  
**Prize Winner, Part 1**

**This journal belongs to:**



Module 6: Conditional Probability

### Algebra II Journal: Reflection 1

Respond to the following reflection questions and submit to your teacher.

**Determine the probability of winning a large prize.**

**Answer:**

$$\frac{12}{20} \cdot \frac{1}{19} = 0.032$$

**Determine the probability of winning a large prize, if the popped pink balloon is replaced.**

**Answer:**

$$\frac{12}{20} \cdot \frac{1}{20} = 0.03$$

**Compare the two probabilities above. Which provides the gamer with a better chance of winning a large prize?**

**Answer:**

The gamer has a better chance if the pink balloon is not replaced.

Module 6: Conditional Probability

### Algebra II Journal: Reflection 2

Respond to the following reflection question and submit to your teacher.

**Design a game that Khalid, Justyce, Andrew, Marissa and Allyson can use at the community fair.**

**Design the game such that the gamer must complete two dependent events in order to win a prize. Justify that the events are dependent by calculating at least two different conditional probabilities.**

**Answer:**

*Answers will vary depending on the game students design.*