***How Many Spins to Win the Prize?***

*(adapted from Hopsfenberger, Jacobbe, Lurie, & Moreno, 2012)*

***Winning a Silver Car***

 **At the school carnival, there is a game in which students spin a large spinner.**

 **The spinner has four equal sections: silver, green, blue, and red. Each section**

 **represents the color of the toy car that can be won. To play the game, Sarah**

 **has to buy some tickets at the ticket booth. She needs one ticket each time she**

 **spins the spinner. She also wants to win a silver toy car. If the spinner stops**

 **on silver on her first spin, Sarah wins. If not, she has to spin the spinner until**

 **it stops on silver. So, she needs to decide how many tickets she should buy to**

 **play this game to win a silver toy car.**

**Sarah really wants to win the silver toy car, but she does not want to waste her money buying too many tickets and she does not want to waste time standing in the ticket line more than one time.**

**Design a simulation that will help you make a recommendation to Sarah as to the number of tickets she should buy.**

***Questions to think about …***

* ***If Sarah takes your recommendation, is she certain to win the silver toy car?***
* ***What if the spinner had three equal sections? What if it had five equal sections?***