# Experiment 2: Changing the dice

With the existing app, we are doing something pretty common in games. We are rolling six-sided dice. But we don't have to stick to that. What if we change the dice and swap them out with something else? What if we swap them with an eight-sided die? Or dice with 10 sides? Or 12 or even 20? We could also completely replace dice entirely and use a deck of playing cards. With each of these changes there are some additional questions to think about to help you try and solve these substitutions. First, if you swap out the original dice with dice with more sides, how will that affect the players' chances to win? Will they get frustrated with the game? Should you relax the rules a bit? Or should you change the number of dice you roll at once? Maybe rolling only two instead of three.

In the last option if you replace dice with a deck of cards, how would you keep track of the depleted set? When you pick a card from a deck and put it aside, you can't pick that card up again. So can you use an array list to keep track of the cards in the deck? How do you make sure you don't pick the same card twice? As you think about these questions and consider the answer, you're now thinking like a programmer. This is because you're now thinking about the code that you need to write to solve these scenarios. So again, here are some tips to help you out. Look for simple solutions.

Sometimes the easiest solution is best. And don't worry if the solution isn't good enough. It's almost impossible to have the perfect solution on your first attempt. So try multiple solutions, and see which ones work out the best. And if you find something that does work, try to iterate on it and make it better. But again, if you get stuck, sometimes it's best just to step back and sketch it out. Moving away from the computer can sometimes be the best way to solve a problem.