

Farkle



Topics: strategy, probability with dice, addition to 10,000

Materials: six six-sided dice, pencil and paper for keeping score

Players: two or more

Recommended Grades: 2-8

Common Core Mathematical Practice Standards: MP1, MP2, MP3, MP5, MP6, MP7

Roll the dice as many times as you dare to add to your score, but watch out, if you farkle you lose all of your points for that turn. Can you be the one to score 10,000 points first?

Why We Love Farkle

Farkle is fun game of strategy and chance that is appropriate for a wide range of ages. There are many ways to score points in this game and everyone gets a lot of practice adding numbers by 50s or hundreds. Knowing when to stop rolling and add your accumulated points to your running score, is the challenge, and players will be weighing the probabilities on each roll. You will find out who is cautious and who likes to take chances when you play Farkle.

How to Play

Farkle can be played with two or more players. On your turn, begin by throwing all six dice. If you like your score (see below for scoring), write it down on your score sheet and pass the dice on to the player on your left. If you are not content with your score, set your scoring dice to the side, pick up the remaining dice and roll again. You may do this again and again, but every time you roll the dice, you must set aside at least one more scoring die. If none of the dice score on any roll, you have farked and you lose all the points that you have accumulated for that turn.

If at any time during your turn all six of your dice are scoring dice, you have “hot dice” and you may roll all six of them again to continue accumulating points. As long as you don’t farkle, you can decide to stop rolling at any time and add the points you have collected to your running total for the game. Writing down this score or farking marks the end of your turn.

The first player to reach 10,000 points wins the game. But, all other players get one last chance to try to pass that score without farking. The highest final score wins.

Scoring the Dice

There is often more than one way to score your dice, and you do not have to set aside every die that could score. Try to keep the highest score that you can, while still leaving yourself as many dice to roll as possible to throw again, thus decreasing your risk of a farkle. Dice combinations must be scored on single throws. For instance, if you roll three fives in one roll, you earn 500 points for three of a kind. However, if you roll one five on your first roll and set it aside, then pick up and roll the remaining dice and get two more fives on your second roll, your three fives are worth only 50 points each for a total of 150 points, not 500 points.

dice rolled	points earned
each 1	100
each 5	50
three 1s*	1,000
three 2s*	200
three 3s*	300
three 4s*	400
three 5s*	500
three 6s*	600
four of a kind*	2 x the score earned for three of a kind
five of a kind*	4 x the score earned for three of a kind
six of a kind*	8 x the score earned for three of a kind
three pairs*	500
a straight (1-2-3-4-5-6)*	1,000
two triples*	2,500

** must be the result of a single roll*

Questions

Some strategy questions to think about as you play:

- How do I decide which scoring dice to set aside after a roll?
- When do I decide to quit rolling and write down my score?
- Should I take fewer chances if I get a big lead?

Variations

1. With young children you may choose to score with fives and tens instead of fifties and hundreds and make the goal 1,000.
2. Shorter Game: Play to 5,000