

Name: _____

Date: _____

Chapter 12 Project

Fantasy Football

Fantasy football has become literally a billion-dollar industry in the last few years. In 2015, more than 57.4 million people played fantasy sports in the United States and Canada.¹ Participants choose a virtual team and then wait to see how their players perform in reality, hoping to win big over the course of the season. With all the discussion of statistics that we've done in this chapter, it's time for you to get in the game, so to speak.

In this reality-based football league, players are drawn from different professional NFL teams and compiled to form a virtual team. To choose players, you, as the manager, participate in an online draft. A fantasy football team roster typically consists of the following:

- 1 Quarterback (QB)
- 2 Running Backs (RB)
- 2 Wide Receivers (WR)
- 1 Flex (RB/WR/TE)
- 1 Tight End (TE)
- 1 Placekicker (K)
- 1 Team Defense/Special Teams (D/ST)
- 6 Bench (BN)

Once you have your team picked, you sit back, enjoy the season, and hope for the best! Your team gets points based on each player's performance in every player's actual games week-to-week. We've listed below a sample of how points in a fantasy league might be awarded.

Sample point distribution per game²

- 1 point for 25 passing yards
- 1 point for 10 rushing yards
- 1 point for 10 receiving yards
- 6 points for a rushing touchdown
- 4 points for a passing touchdown
- 1 point for each extra point made
- -2 points for every interception thrown or fumble lost
- 3 points for each 0-39 yard field goal, 4 points for each 40-49 yard field goal, and 5 points for each 50+ yard field goal
- 2 points for a turnover gained by defense

1 "Industry Demographics," Fantasy Sports Trade Association, accessed October 28, 2016. <http://fsta.org/research/industry-demographics/>

2 "Score Settings for Standard Leagues," ESPN, accessed October 28, 2016. <http://games.espn.com/ffl/resources/help/content?name=scoring-settings-standard>

- 1 point for a sack by the defense
- 2 points for a safety by defense
- 6 points for each touchdown scored by defense
- 2 points for each blocked kick

As we've seen in this chapter, there are many statistics that help you know who the best players are. We've come up with a new statistic to help choose one of the players on the fantasy team. We call it the *XXX Factor*. To calculate this stat, you take the number of passing yards, add on 4 times the number of passing touchdowns, plus the number of quarterback rushing yards, plus 6 times the number of quarterback rushing touchdowns, minus 2 times the number of interceptions. Divide all of this by the number of games played. Here's a formula for *XXX Factor*.

$$\text{XXX Factor} = \frac{(\text{passing yards}) + 4(\text{passing TDs}) + (\text{QB rushing yards}) + 6(\text{QB rushing TDs}) - 2(\text{interceptions})}{\text{games played}}$$

Use the formula for *XXX Factor* to answer the following questions. You may use the internet to clarify terminology or lookup historical performances if needed.

1. Which position's performances might be involved in calculating *XXX Factor*?
2. Think about what range of values the *XXX Factor* statistic can take on. In other words, what are the lowest and highest possible values for *XXX Factor*? Describe the range of possible values for this statistic. Assume that there are 16 weeks of play during a season. For a more precise range of values, try looking up historical statistics on NFL.com.
3. What does having a high number in this statistic indicate about the individual stats in the formula?
4. What does having a low number in this statistic indicate about the individual stats in the formula?

5. Is it possible for the stat to be a negative number? If so, what does that indicate about the individual stats in the formula?

6. Which number do you think could have the biggest impact on value of *XXX Factor*? Why?

It's time to test out the statistic. Use a website such as www.NFL.com to get current statistics on a player or players that impact this statistic.

7. List your internet source here: _____

You will need to choose two players from NFL teams to compare against one another using the statistic *XXX Factor*. Pick two players who are ranked in the top 10 on the site.

8. List each player and the NFL team they play for.

Player 1 ranked in the top 10: _____

NFL team: _____

Player 2 ranked in the top 10: _____

NFL team: _____

9. Use the data from the website to calculate the statistic for each of the players you chose.

XXX Factor for player 1: _____

XXX Factor for player 2: _____

10. How does our statistic, the *XXX Factor*, stack up against the NFL rankings?
11. Does the statistic indicate that player 1 and 2 would rank the same as they do in the NFL? Explain.
12. Which number in the formula seems to have the biggest impact based on your calculations?

Now that we've thought a little about our statistic, let's take a moment and choose a new name, since *XXX Factor* isn't very descriptive or helpful in letting others know what it indicates or who is involved.

13. Dream up a new name for *XXX Factor*: _____

Now it's your turn! Your task is to create another new statistic for the fantasy football league that will help participants choose their players in the draft. Think about what the stat might convey to people and how it might influence their player choices.

14. How is your statistic calculated?

15. Which players' performance might be involved in calculating your new statistic?

Think about what range of values your statistic can take on. Describe the range of possible values for this statistic. Assume that there are 16 weeks of play during a season.

16. What does having a high number in your statistic indicate?

17. What does having a low number in your statistic indicate?

18. What could have the biggest impact on your statistic?

19. Which member of the fantasy roster would your statistic help fantasy football participants choose?

Return to the website you used before and choose two players to compare against one another using your statistic. Again, pick two players who are ranked in the top 10 on the website.

20. List each player and the NFL team they play for.

Player A ranked in the top 10: _____

NFL team: _____

Player B ranked in the top 10: _____

NFL team: _____

- 21.** Use the data from the website to calculate the statistic for each of the players you chose.

Stat for player A: _____

Stat for player B: _____

- 22.** How does your statistic stack up against the NFL rankings?

- 23.** Does the statistic indicate that player A would rank the same compared to player B as they do in the NFL rankings?

- 24.** Explain why your statistic would be good for someone to use in choosing their team for fantasy football.

- 25.** Create a name for your new statistic.