

Lesson Plan

Football Fractions

Book: *Derek Carr: Football Star*

Series: Biggest Names in Sports

Level: Navigator

Objective

To help students practice forming fractions, simplifying fractions, and adding or subtracting fractions with like denominators.

Supplies

- *Derek Carr: Football Star* book
- Football Fractions worksheet (attached)

Before the Activity

Read through the *Derek Carr* book, or assign it to students to read on their own.

Activity

Give each student a Football Fractions worksheet. Each word problem on this worksheet contains statistics from the *Derek Carr* book. Students should calculate the answer to each problem. Remind them to write their answers as fractions, simplifying (or reducing) each fraction as much as possible. Review this process with students, if needed.

Evaluation

Use the attached answer key to score students' worksheets, for a total of up to 12 points.

Standards

This lesson may be used to address the Common Core State Standards' math standards, grade 4 (CCSS.MATH.CONTENT.4.NF.A.2).

Football Fractions

1. Derek Carr started all 16 games in his rookie year, but the Raiders were not a good team. They finished the 2014 season with a 3–13 record. What fraction of the games did the Raiders win during Carr’s rookie year?

2. Is that more or less than $\frac{1}{4}$ of the games they played?

3. What fraction of the games did the Raiders lose during Carr’s rookie season?

4. Is that more or less than $\frac{3}{4}$ of the games they played?

5. In 2015, the Raiders improved to 7–9. What fraction of the games did the team win that year?

6. Is that more or less than $\frac{1}{2}$ of the games they played?

7. What fraction of the games did the Raiders lose in 2015?

8. Is that more or less than $\frac{1}{2}$ of the games they played?

Football Fractions **ANSWER KEY**

1. Derek Carr started all 16 games in his rookie year, but the Raiders were not a good team. They finished the 2014 season with a 3–13 record. What fraction of the games did the Raiders win during Carr’s rookie year?

$3/16$ (1 point)

2. Is that more or less than $1/4$ of the games they played?

$4 \times 4 = 16$, so $1/4 = 4/16$ (because $1 \times 4 = 4$).

$3/16$ is less than $4/16$, so $3/16$ is less than $1/4$. (2 points)

3. What fraction of the games did the Raiders lose during Carr’s rookie season?

$13/16$ (1 point)

4. Is that more or less than $3/4$ of the games they played?

$4 \times 4 = 16$, so $3/4 = 12/16$ (because $3 \times 4 = 12$).

$13/16$ is more than $12/16$, so $13/16$ is more than $3/4$. (2 points)

5. In 2015, the Raiders improved to 7–9. What fraction of the games did the team win that year?

$7/16$ (1 point)

6. Is that more or less than $1/2$ of the games they played?

$2 \times 8 = 16$, so $1/2 = 8/16$ (because $1 \times 8 = 8$).

$7/16$ is less than $8/16$, so $7/16$ is less than $1/2$. (2 points)

7. What fraction of the games did the Raiders lose in 2015?

$9/16$ (1 point)

8. Is that more or less than $1/2$ of the games they played?

$2 \times 8 = 16$, so $1/2 = 8/16$ (because $1 \times 8 = 8$).

$9/16$ is more than $8/16$, so $9/16$ is more than $1/2$. (2 points)