Lesson One: Multiplication Within 100
Lesson Two: Division Within 100
Lesson Three: Place Value Rounding
Lesson Four: Addition \& Subtraction with 3 Digits
Lesson Five: Introduction to Fractions
Lesson Six: Comparing Fractions
Lesson Seven: Addition \& Subtraction Using Time
Lesson Eight: Scaled Graphs
Lesson Nine: Introduction to Perimeter
Lesson Ten: Introduction to Area

## Lesson One: Multiplication Within 100

Objective: Fluently multiply within 100 and know from memory all products of two one-digit numbers

1. The Titans scored 5 touchdowns during their last game. (Assume that each extra point was good, so each touchdown resulted in 7 points.) How many points did they score? Use multiplication to find your answer.
2. The Titans kicked 6 field goals during their last game. How many points did they score? Use multiplication to find your answer.
3. The Titans' opponent received four penalties during their last game, and each penalty lost 5 yards. How many total yards did they lose due to penalties?
4. If Corey Davis catches 4 passes for 9 yards each, how many total receiving yards will he have at the end of the game?

Draw a line from the multiplication problem to the jersey with the number that completes the problem. Jerseys may answer more than one problem.


## Lesson Two: Division Within 100

Objective: Fluently divide within 100, using knowledge of multiplication tables and the relationship between multiplication and division.

1. The Titans scored a total of 18 points during a game against the Jaguars. If a field goal is worth 3 points, and they scored all of their points with field goals, how many field goals did they make?
2. The Titans scored 42 points during a game against the Texans. If all of their points came from touchdowns, how many touchdowns did they score?
3. AJ Brown had 24 total catches during his last three games. If he caught an equal number of passes in each game, how many passes did he catch per game?
4. The Titans scored 34 points during their last game. If they scored the same number of points in the first half and the second half, how many points did they score per half?

Draw a line from the division problem to the jersey with the number that completes the problem. Jerseys will answer more than one problem.

$$
\begin{aligned}
& 36 \div 6=? \\
& 33 \div 3=? \\
& 24 \div 4=? \\
& 50 \div 5=? \\
& 44 \div 4=? \\
& 42 \div 7=? \\
& 30 \div 3=?
\end{aligned}
$$



## Lesson Three: Place Value Rounding

Objective: Use place value understanding to round whole numbers to the nearest 10 or 100.

Round the following numbers to the nearest 10 .

1. Ryan Tannehill's attempted passes: $\mathbf{2 8 6}$
2. Brett Kern's punts: 78
3. Kevin Byard's tackles: 84
4. Jonnu Smith's receiving yards: 439
5. Derrick Henry's rushing attempts: 303

Round the following numbers to the nearest 100.
6. Titans first downs: 317
7. AJ Brown's receiving yards: 1,051
8. Titans total offensive yards: $\mathbf{5 , 8 0 5}$
9. Ryan Tannehill's passing yards: 2,742
10. Derrick Henry's rushing yards: 1,540

# Lesson Four: Addition and Subtraction with Three Digits 

Objective: Fluently add and subtract within 1000.

1. The Titans gained 206 yards in the first half and 137 yards in the second half. How many total yards did they have in the game?

In the same game, how many more yards did the Titans gain in the first half than in the second half?
2. Last season, Jonnu Smith had 439 rushing yards, and Adam Humphries had 374 rushing yards. How many total yards did the two players have?

How many more yards did Jonnu have?
3. The Titans rushed for 224 yards in their Week 1 game, and 157 yards in their Week 2 game. How many more rushing yards did they have in Week 1?
4. The Titans had 405 yards of total offense, while the Jaguars had 278 yards of total offense. How many more yards did the Titans have?

In the same game, how many yards were gained by the two teams combined?
5. Last season, Ryan Tannehill attempted 286 passes, and Titans receivers caught 201 of those passes. How many passes went uncaught and were recorded as incompletions?
6. Last season, the Titans gained 177 first downs by passing the football, and 104 first downs by rushing the football. How many more first downs did they get when passing the football?

## Lesson Five: Introduction to Fractions

Objective: Develop understanding of fractions as numbers.

1. Last season, the Titans played 16 games, and won 9 of those games. Write this as a fraction.
2. A football game is divided into 4 quarters. Write one quarter as a fraction.
3. Each year, the Titans play 8 games at Nissan Stadium, and 8 games on the road. Write the number of home games as a fraction of their season.
4. Ryan Tannehil completed 15 of his 19 pass attempts at a recent game. Write this number as a fraction.
5. Corey Davis caught 8 passes out of 10 attempts. Write this number as a fraction.
6. The Titans were successful of 4 of their 14 attempts at fourth down conversion. Write this number as a fraction.
7. At a recent game, Ryan Tannehill attempted 27 passes, and completed 19 of those. Write this number as a fraction.
8. There are 11 Titans players on the field at a time. When the Titans are on offense, they must have 7 players on the line of scrimmage. Write this amount as a fraction.
9. In a recent game, Ryan Tannehill threw a pass to AJ Brown 7 times. AJ caught 6 of those passes, and dropped one. Write the number of passes he caught as a fraction.

## Lesson Six: Comparing Fractions

Objective: Recognize simple equivalent fractions and compare two fractions with the same numerator or the same denominator.

1. On the first drive of a recent game, Ryan Tannehill completed 3 of 4 pass attempts. Write two fractions that are equivalent to this amount.
2. Last season, the Titans made 2 field goals out of 5 attempts from farther than 50 yards. Write two fractions that are equivalent to this amount.
3. Last season, the Titans played 8 home games, and won 4 of those games. Write this amount as a fraction, and then write two equivalent fractions.
4. During a recent game, Corey Davis caught 6 of 8 passes thrown to him. Write this amount as a fraction, and then write two equivalent fractions.
5. You have watched 4 Titans game this season, and the Titans won three of those games. Write two fractions that are equivalent to this amount.

Compare the team passing statistics from recent Titans games. For each game, write each team's numbers as a fraction, and then compare the fractions using < or >.

Titans: 25 completions on 38 attempts Vikings: 25 completions on 42 attempts

Titans: 19 completions on 26 attempts Lions: 13 completions on 26 attempts

Titans: 14 completions on 25 attempts Raiders: 14 completions on 19 attempts

Titans: 27 completions on 39 attempts
Texans: 22 completions on 39 attempts

## Lesson Seven: Addition and Subtraction Using Time

Objective: Solve word problems involving addition and subtraction of time intervals in minutes.

1. In the NFL, games are divided into four quarters, and each quarter lasts

15 minutes. How long do two quarters last?
2. If 8 minutes have been played in the first quarter, how many minutes are left before the end of the quarter?
3. If there are two minutes left in the third quarter, how many minutes of football have been played so far?
4. If the Titans' offense was on the field for 16 minutes in the first half and 15 minutes in the second half, how many total minutes were they on the field?
5. The Titans' practice is scheduled to last 3 hours, or 180 minutes, today. If the team has already practiced for 60 minutes, how much practice time do they have left?
6. During an NFL game, the halftime break lasts 12 minutes, and you're hungry! If it takes you 8 minutes to get a snack from the concession stand, how much time do you have left before the game starts again?
7. It takes your family 25 minutes to drive from your house to Nissan Stadium. If you've already been driving for 14 minutes, how much longer do you have before you arrive at the game?
8. It takes your friend Caroline and her family 18 minutes longer to drive to Nissan Stadium than it takes your family. How many minutes is the drive for Caroline?

## Lesson Eight: Scaled Graphs

Objective: Draw a scaled picture graph and a scaled bar graph to represent a data set.
The Titans scored 48 points in their first game, 28 points in their second game, 34 points in their third game, and 21 points in their fourth game. Fill in the bar graph to show the points they scored in each game.


The Titans had 115 yards in the first quarter, 55 yards in the second quarter, 70 yards in the third quarter, and 90 yards in the fourth quarter. Fill in the bar graph to show the yards they had each quarter.


Below is the number of rushing yards gained by three Titans players last season. Draw a picture graph to represent the data, using one object of your choice for each 100 yards gained.

| Derrick Henry | 1,540 yards |
| :--- | :--- |
| Ryan Tannehill | 185 yards |
| Jonnu Smith | 78 yards |


| Derrick Henry |  |
| :--- | :--- |
| Ryan Tannehill |  |
| Jonnu Smith |  |

Below is the number of receptions by five Titans players last season. Draw a picture graph to represent the data, using one object of your choice for every 10 catches.

| AJ Brown | 52 catches |
| :--- | :--- |
| Corey Davis | 43 catches |
| Adam Humphries | 37 catches |
| Jonnu Smith | 35 catches |


| AJ Brown |  |
| :--- | :--- |
| Corey Davis |  |
| Adam Humphries |  |
| Jonnu Smith |  |

Lesson Nine: Introduction to Perimeter
Objective: Solve real world and mathematical problems involving perimeters of polygons.

1. Find the perimeter of the scoreboard below.

20 feet wide

2. Find the perimeter of one endzone at Nissan Stadium.

## 53 yards wide


3. All standard NFL football fields, including the field at Nissan Stadium, are 160 feet wide and 360 feet long. What is the perimeter of a field?
4. The Titans' locker room is 120 feet wide and 85 feet long. Draw a diagram of the locker room, and then find its perimeter.
5. Each endzone has a pylon that marks the goal line. If a pylon is shaped like a square that is 4 inches wide and 4 inches tall, how many inches of string would you need to completely wrap around one pylon?

## Lesson Ten: Introduction to Area

Objective: Recognize area as an attribute of plane figures and understand concepts of area measurement.

1. Find the area of the scoreboard below.

## 20 feet wide


2. Find the area of one endzone at Nissan Stadium.

53 yards wide

3. Not counting the endzones, all standard football fields are 53 yards wide and 100 yards long. What is the area of the field between endzones?
4. The Titans' weight room is 100 feet wide and 47 feet long. Draw a diagram of the weight room, and then find its perimeter.
5. You bought a new Titans poster at the Pro Shop! The poster is 20 inches wide and 9 inches tall. What is the area of the poster?

FREGM $\sqrt{6}$ (D)



