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# Lesson One: Using the Four Operations

*Objective: Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations.*

1. The Titans scored 14 points in the first quarter. They scored ten more points in the second quarter, and seven points in the third quarter. They ended the game with 45 points. How many points did they score in the fourth quarter?
  
  
  
  
  
  
  
  
  
  
2. Derrick Henry rushed for 110 yards in each of the first two games of the season. He rushed for 143 yards in the third game. How many total rushing yards does he have this season?
  
  
  
  
  
  
  
  
  
  
3. In Rashaan Evans' first season with the Titans, he had 53 tackles. In his second season, he had 58 more than that. How many total completions does he have after two seasons?

4. In a recent game, Brett Kern had two punts that traveled exactly the same distance. If his total punting yardage was 86 yards, how many yards did each punt travel?

5. If Adam Humphries caught 7 passes in a recent game, and AJ Brown caught two fewer passes, how many total passes did the two players catch?

6. Jayon Brown had 5 tackles each in four games last season, and had 6 tackles each in two other games. How many total tackles did he have in those six games?

## Lesson Two: Introduction to Factors and Multiples

*Objective: Find all factor pairs for a whole number in the range 1–100, and determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number.*

Look at each jersey below and write all factor pairs for the number on the jersey.



$$\underline{\quad} \times \underline{\quad} = 24$$

$$\underline{\quad} \times \underline{\quad} = 24$$

$$\underline{\quad} \times \underline{\quad} = 24$$

$$\underline{\quad} \times \underline{\quad} = 24$$



$$\underline{\quad} \times \underline{\quad} = 48$$

$$\underline{\quad} \times \underline{\quad} = 48$$

$$\underline{\quad} \times \underline{\quad} = 48$$

$$\underline{\quad} \times \underline{\quad} = 48$$

$$\underline{\quad} \times \underline{\quad} = 48$$

In each set, circle the numbers that are multiples of the jersey number.



24

80

54

27

56

60

32

48



49

80

54

28

56

62

28

48

## Lesson Three: Four Digit Multiplication

*Objective: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers.*

1. Each half of a football game is 30 minutes, or 1,800 seconds. How many seconds are in an entire game?
2. In a recent game, AJ Brown had 12 catches and Corey Davis had 13 catches. What is the product of these two numbers?
3. If each row at Nissan Stadium has 24 seats, and each section has 18 rows, how many seats are there in one section?

Multiply the numbers seen on each of the Titans jerseys below.

 $\times$  $=$

 $\times$  $=$

 $\times$  $=$

## Lesson Four: Four Digit Division

*Objective: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors.*

1. The Titans had an equal number of yards in four recent games. If their total yardage was 1,328, how many yards did they have in each game?
2. A parking lot at Nissan Stadium holds 8,433 cars. If you split this lot into 3 equal sections, how many cars would be in each section?
3. If a football game lasts 3,600 seconds, how many seconds does one quarter last?



4. Last season, the Titans had 3,582 passing yards. Divide this number by the number of interceptions thrown by the Titans, which is 8. What is the quotient and what is the remainder?


5. Ryan Tannehill passed for 2,742 yards last season. Divide this number by the number of games he won as a starter, 7. What is the quotient, and what is the remainder?


6. The Titans had 5,805 total offensive yards last season. Divide this number by the number of home games they played, 8. What is the quotient, and what is the remainder?

## Lesson Five: Multiplying Fractions

*Objective: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.*

Multiply the number seen on the Titans jerseys by the fraction written next to it.


$$\times \frac{3}{8} =$$


$$\times \frac{2}{5} =$$



$$\times \frac{3}{4} =$$



$$\times \frac{1}{6} =$$



$$\times \frac{2}{3} =$$

## Lesson Six: Decimals and Fractions

*Objective: Use decimal notation for fractions with denominators 10 or 100.*

1. Ryan Tannehill has completed 8 of his last 10 pass attempts. Write this number first as a fraction, and then as an equivalent decimal.
  
  
  
  
  
  
  
  
  
  
2. In 2019, the Titans won 7 of their last 10 regular season games. Write this number as a fraction, and then write it again as using decimal notation.
  
  
  
  
  
  
  
  
  
  
3. Adam Humphries has caught 9 of the last 10 passes thrown to him. Write this number first as a fraction, and then as an equivalent decimal.

Write the following statistics as fraction, using either 10 or 100 as the denominator.

4. Ryan Tannehill's average yards per pass attempt: **9.6**

5. Derrick Henry's average yards per carry: **5.1**

6. AJ Brown's average yards per reception: **20.27**

7. Ryan Tannehill's completion percentage: **70.3**

8. Brett Kern's average punt length: **47.12** yards

## Lesson Seven: Comparing Units of Measurement

*Objective: Know relative sizes of measurement units within one system of units, and express measurements in a larger unit in terms of a smaller unit.*

1. In the NFL, games are divided into four quarters, and each quarter lasts 15 minutes. How many seconds does each quarter last?
2. If one yard equals three feet, which is longer: 6 yards or 6 feet?
3. If a team needs 10 yards for a first down, how many feet do they need?

4. Dennis Kelly is 6 feet and 8 inches tall. How tall is he in inches?

5. Kevin Byard is 5 feet and 11 inches tall. How tall is he in inches?

6. AJ Brown caught a pass from Ryan Tannehill, and then ran for 20 more yards. How far did he run in feet after catching the pass?

7. Brett Kern punted the ball 54 yards. How far did he punt it in feet?

## Lesson Eight: Word Problems

*Objective: Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money.*

1. The Titans had 85 rushing yards in the first quarter, and 44 rushing yards in the second quarter. In the third quarter, they rushed for 53 yards, and they finished the game with 224 total rushing yards. How many yards did they have in the fourth quarter?
  
  
  
  
  
  
  
  
  
  
2. Derrick Henry rushed for 80 yards in each of the first three games of the season. He rushed for 95 yards in the fourth game. How many total rushing yards does he have this season?
  
  
  
  
  
  
  
  
  
  
3. The Titans had the football for 20 minutes and 42 seconds in the first half, and they had it for six minutes less than that in the second half. What was their total time of possession?



4. It's halftime, and you're hungry! At the concession stand, a hot dog costs \$6, and chips cost half of that amount. You also buy a drink for \$4. How much is your total at the cash register?

5. Derrick Henry had 120 rushing yards in a recent game, and Ryan Tannehill one-fourth of that amount. How many rushing yards did the two players have combined?

6. At the Titans Pro Shop, you want to buy a shirt, hat, and foam finger. The shirt costs \$24, and the hat costs \$17. If you give the cashier \$50 and he gives you back \$5 in change, how much did the foam finger cost?

## Lesson Nine: Area and Perimeter

*Objective: Apply the area and perimeter formulas for rectangles in real world and mathematical problems.*

1. All standard NFL football fields, including the field at Nissan Stadium, are 160 feet wide and 360 feet long. First, write these dimensions in yards.

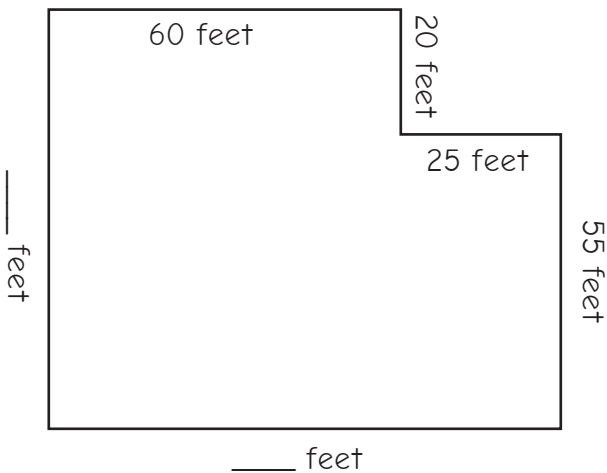
2. Next, find the area and perimeter of the field in both yards and feet.

3. One videoboard at Nissan Stadium is 157 feet wide and 54 feet tall. Draw a diagram of the videoboard with dimensions labeled, and then find its area and perimeter.

4. The Titans Pro Shop is shaped like a rectangle that is 95 feet wide and 75 feet deep. First, draw a diagram of the Pro Shop and label its dimensions.

5. Next, find both the area and perimeter of the Pro Shop.

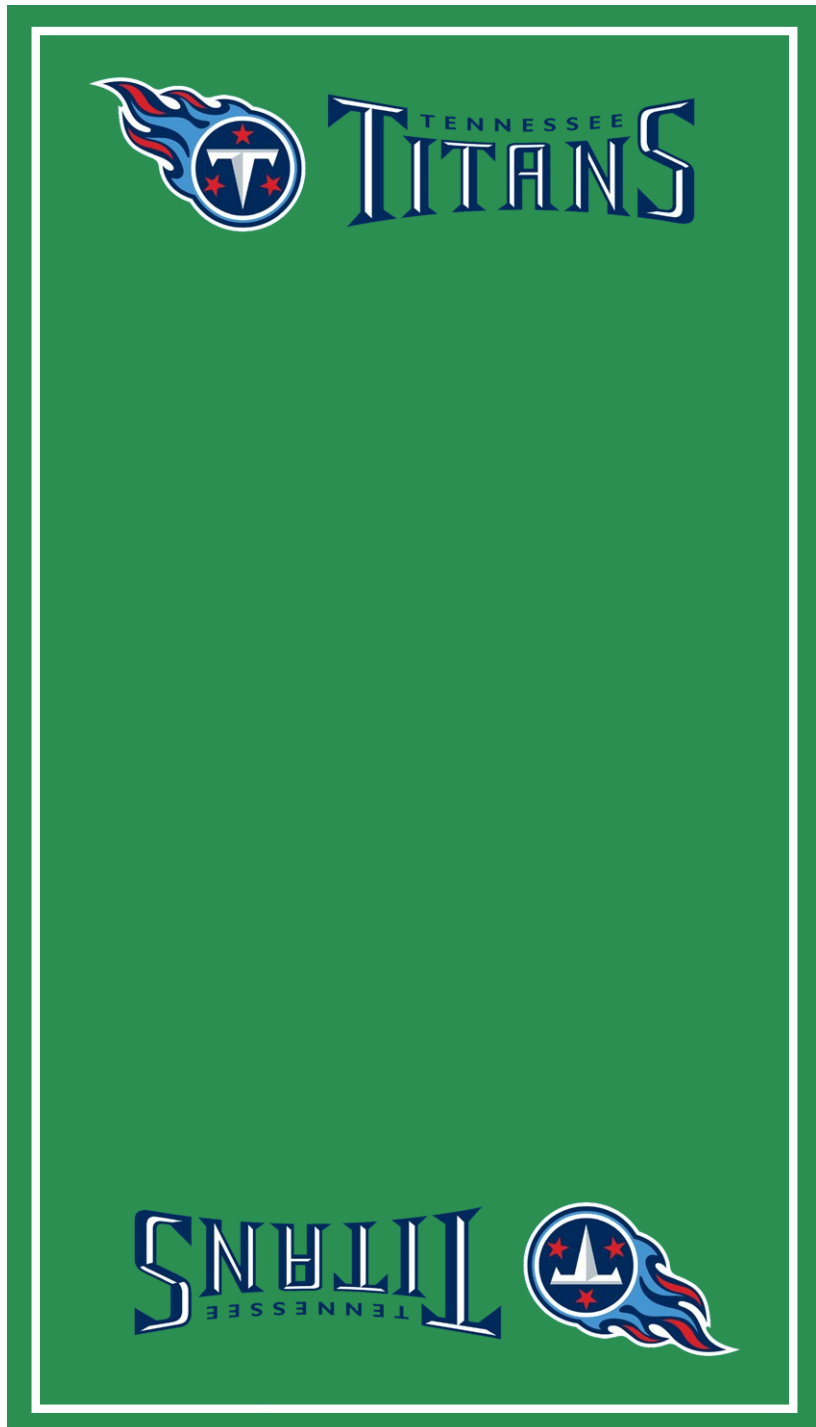
6. The Titans' weight room is shaped like an "L" as shown below. First, find the lengths of the missing sides, and then find the area and perimeter of the room.



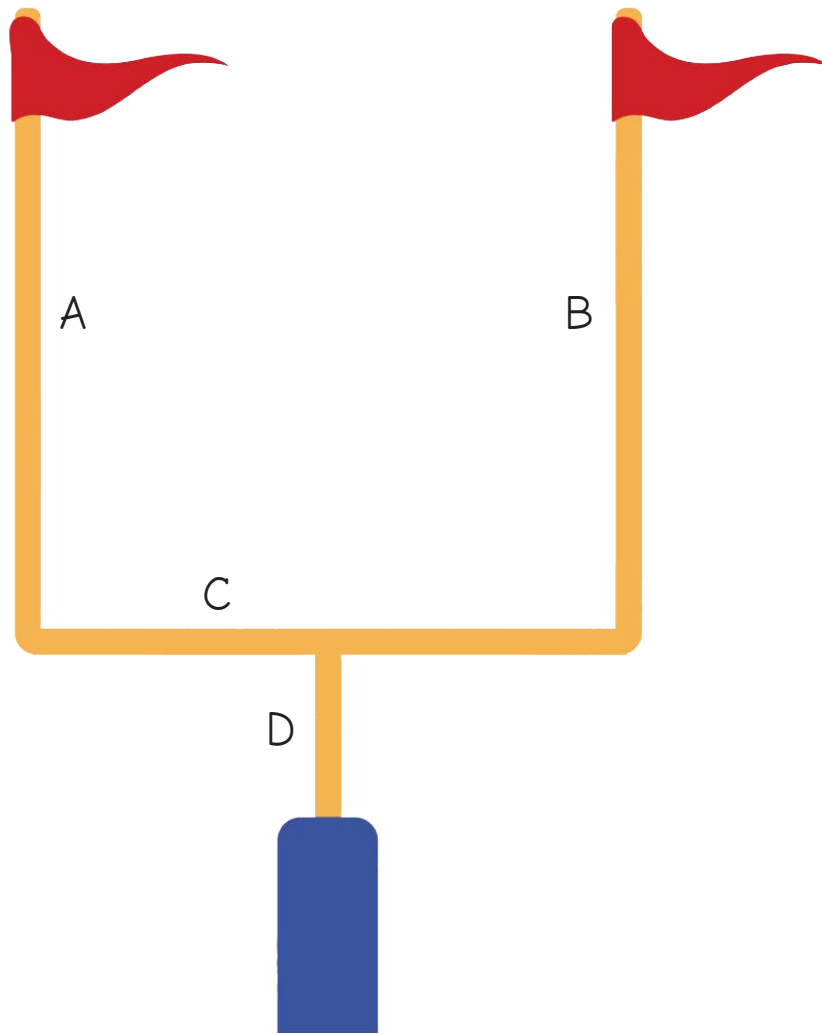
# Lesson Ten: Introduction to Geometry

*Objective: Draw points, lines, line segments, and perpendicular and parallel lines.*

1. Help the Titans paint the field! Draw 11 parallel lines on the football field below.



2. Look at the goalposts below, and answer the following questions.



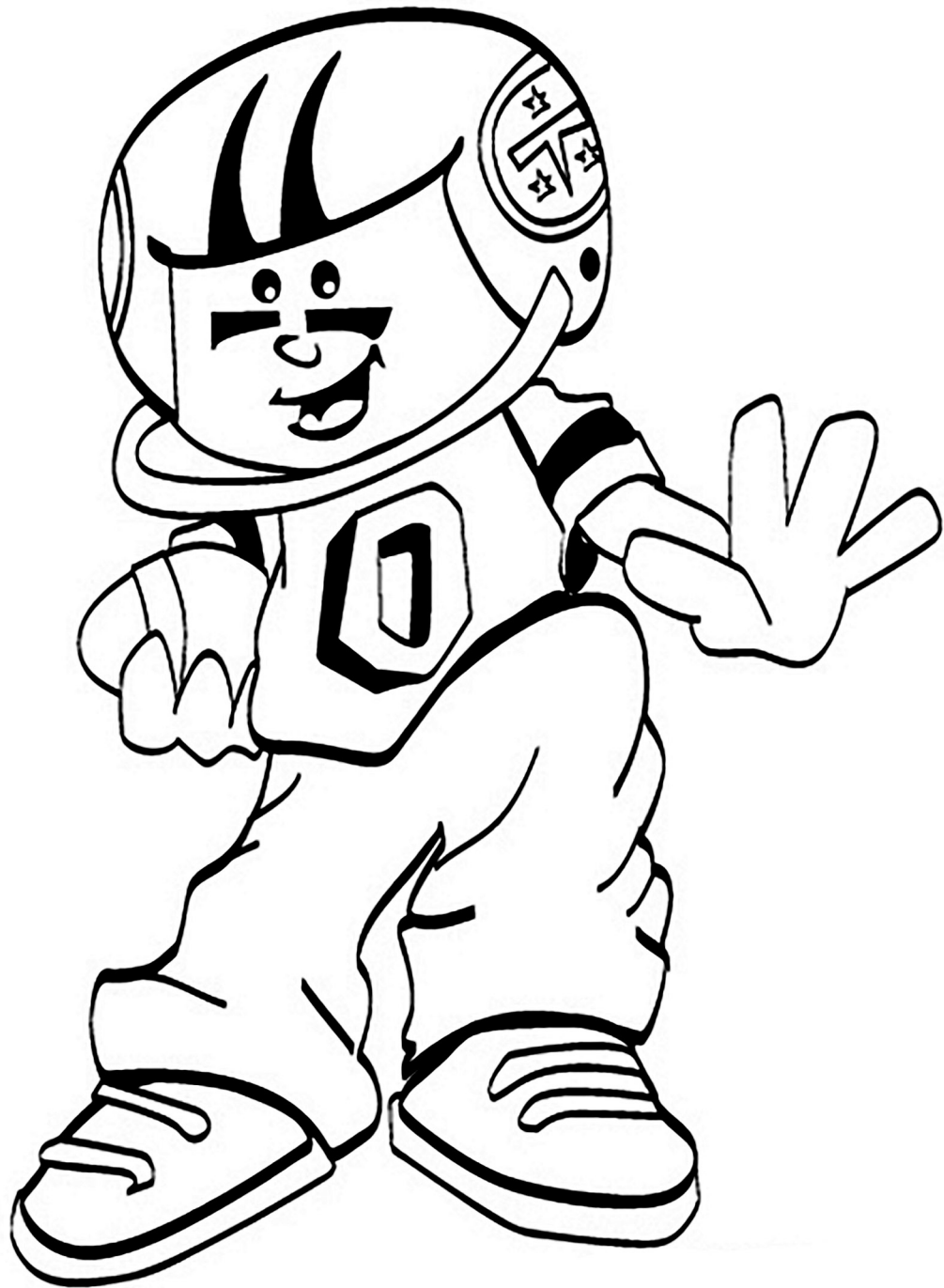
Are lines A and B parallel or perpendicular?

Are lines A and C parallel or perpendicular?

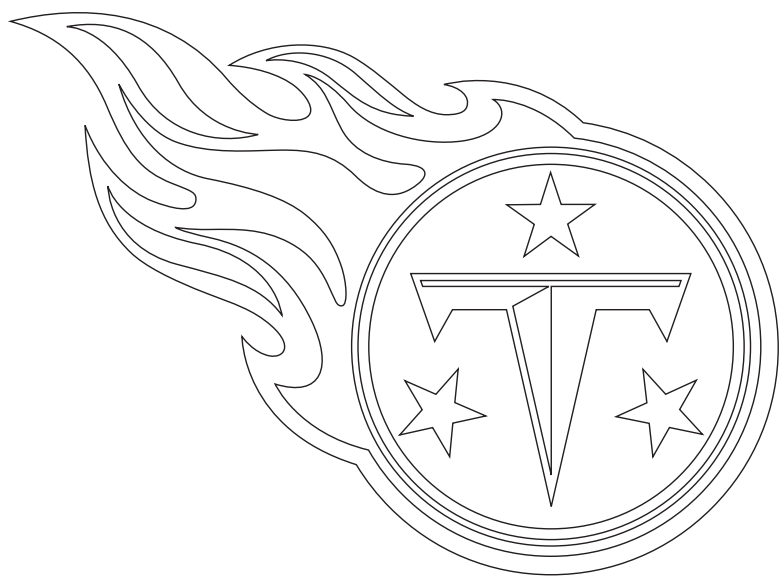
Are lines B and D parallel or perpendicular?

GREAT JOB!





TITAN UP!



TENNESSEE  
TITANS