

Name _____

Date _____

1. Use the standard algorithm to solve the following subtraction problems.

a.
$$\begin{array}{r} 2,460 \\ -1,370 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 2,460 \\ -1,470 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 97,684 \\ -49,700 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 2,460 \\ -1,472 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 124,306 \\ -31,117 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 97,684 \\ -4,705 \\ \hline \end{array}$$

g.
$$\begin{array}{r} 124,006 \\ -121,117 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 97,684 \\ -47,705 \\ \hline \end{array}$$

i.
$$\begin{array}{r} 124,060 \\ -31,117 \\ \hline \end{array}$$

Draw a tape diagram to represent each problem. Use numbers to solve, and write your answer as a statement. Check your answers.

2. There are 86,400 seconds in one day. If Mr. Liegel is at work for 28,800 seconds a day, how many seconds a day is he away from work?

3. A newspaper company delivered 240,900 newspapers before 6 a.m. on Sunday. There were a total of 525,600 newspapers to deliver. How many more newspapers needed to be delivered on Sunday?
4. A theater holds a total of 2,013 chairs. 197 chairs are in the VIP section. How many chairs are not in the VIP section?
5. Chuck's mom spent \$19,155 on a new car. She had \$30,064 in her bank account. How much money does Chuck's mom have after buying the car?

Name _____

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1. Use the standard algorithm to solve the following subtraction problems.

a.
$$\begin{array}{r} 71,989 \\ - 21,492 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 371,989 \\ - 96,492 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 371,089 \\ - 25,192 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 879,989 \\ - 721,492 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 879,009 \\ - 788,492 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 879,989 \\ - 21,070 \\ \hline \end{array}$$

g.
$$\begin{array}{r} 879,000 \\ - 21,989 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 279,389 \\ - 191,492 \\ \hline \end{array}$$

i.
$$\begin{array}{r} 500,989 \\ - 242,000 \\ \hline \end{array}$$

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Use the standard algorithm to solve the following subtraction problems.

1.
$$\begin{array}{r} 19,350 \\ - 5,761 \\ \hline \end{array}$$

2. $32,010 - 2,546$

Draw a tape diagram to represent the following problem. Use numbers to solve, and write your answer as a statement. Check your answer.

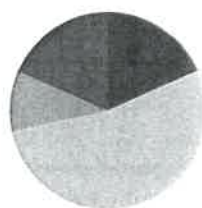
3. A doughnut shop sold 1,232 doughnuts in one day. If they sold 876 doughnuts in the morning, how many doughnuts were sold during the rest of the day?

Lesson 15

Objective: Use place value understanding to fluently decompose to smaller units multiple times in any place using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.

Suggested Lesson Structure

■ Fluency Practice	(11 minutes)
■ Application Problem	(6 minutes)
■ Concept Development	(32 minutes)
■ Student Debrief	(11 minutes)
Total Time	(60 minutes)



Fluency Practice (11 minutes)

- Place Value **4.NBT.2** (3 minutes)
- Find the Difference **4.NBT.4** (4 minutes)
- Convert Units **4.MD.1** (4 minutes)

Place Value (3 minutes)

Materials: (T) Personal white board

Note: Practicing these skills in isolation helps lay a foundation for conceptually understanding this lesson's content.

- T: (Write 4,598.) Say the number.
 S: 4,598.
 T: What digit is in the tens place?
 S: 9.
 T: (Underline 9.) What is the value of the 9?
 S: 90.
 T: State the value of the digit 4.
 S: 4,000.
 T: 5?
 S: 500.

Repeat using the following possible sequence: 69,708; 398,504; and 853,967.

Name _____

Date _____

1. Use the standard subtraction algorithm to solve the problems below.

a.
$$\begin{array}{r} 101,660 \\ - 91,680 \\ \hline \end{array}$$

b.
$$\begin{array}{r} 101,660 \\ - 9,980 \\ \hline \end{array}$$

c.
$$\begin{array}{r} 242,561 \\ - 44,702 \\ \hline \end{array}$$

d.
$$\begin{array}{r} 242,561 \\ - 74,987 \\ \hline \end{array}$$

e.
$$\begin{array}{r} 1,000,000 \\ - 592,000 \\ \hline \end{array}$$

f.
$$\begin{array}{r} 1,000,000 \\ - 592,500 \\ \hline \end{array}$$

g.
$$\begin{array}{r} 600,658 \\ - 592,569 \\ \hline \end{array}$$

h.
$$\begin{array}{r} 600,000 \\ - 592,569 \\ \hline \end{array}$$

Name _____

Date _____

1. Use the standard subtraction algorithm to solve the problems below.

$$\begin{array}{r} \text{a.} \quad 9,656 \\ - \quad 838 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b.} \quad 59,656 \\ - \quad 5,880 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c.} \quad 759,656 \\ - \quad 579,989 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d.} \quad 294,150 \\ - \quad 166,370 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e.} \quad 294,150 \\ - \quad 239,089 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f.} \quad 294,150 \\ - \quad 96,400 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g.} \quad 800,500 \\ - \quad 79,989 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h.} \quad 800,500 \\ - \quad 45,500 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i.} \quad 800,500 \\ - \quad 276,664 \\ \hline \end{array}$$

Use tape diagrams and the standard algorithm to solve the problems below. Check your answers.

2. A fishing boat was out to sea for 6 months and traveled a total of 8,578 miles. In the first month, the boat traveled 659 miles. How many miles did the fishing boat travel during the remaining 5 months?

3. A national monument had 160,747 visitors during the first week of September. A total of 759,656 people visited the monument in September. How many people visited the monument in September after the first week?
4. Shadow Software Company earned a total of \$800,000 selling programs during the year 2012. \$125,300 of that amount was used to pay expenses of the company. How much profit did Shadow Software Company make in the year 2012?
5. At the local aquarium, Bubba the Seal ate 25,634 grams of fish during the week. If, on the first day of the week, he ate 6,987 grams of fish, how many grams of fish did he eat during the remainder of the week?

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Draw a tape diagram to model each problem and solve.

1. $956,204 - 780,169 =$ _____

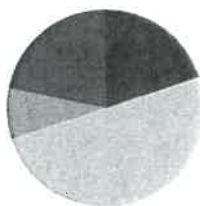
2. A construction company was building a stone wall on Main Street. 100,000 stones were delivered to the site. On Monday, they used 15,631 stones. How many stones remain for the rest of the week? Write your answer as a statement.

Lesson 16

Objective: Solve two-step word problems using the standard subtraction algorithm fluently modeled with tape diagrams, and assess the reasonableness of answers using rounding.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(30 minutes)
■ Student Debrief	(13 minutes)
Total Time	(60 minutes)



Fluency Practice (12 minutes)

- Sprint: Convert Meters and Centimeters to Centimeters **4.MD.1** (8 minutes)
- Compare Numbers **4.NBT.2** (4 minutes)

Sprint: Convert Meters and Centimeters to Centimeters (8 minutes)

Materials: (S) Convert Meters and Centimeters to Centimeters Sprint

Note: Reviewing unit conversions that were learned in Grade 3 helps to prepare students to solve problems with meters and centimeters in Module 2, Topic A.

Compare Numbers (4 minutes)

Materials: (S) Personal white board

Note: Reviewing this concept helps students work toward mastery of comparing numbers.

T: (Project 342,006 _____ 94,983.) On your personal white boards, compare the numbers by writing the greater than, less than, or equal symbol.

S: (Write $342,006 > 94,893$.)

Repeat with the following possible sequence: 7 thousands 5 hundreds 8 tens _____ 6 ten thousands 5 hundreds 8 ones, and 9 hundred thousands 8 thousands 9 hundreds 3 tens _____ 807,820.

B

Number Correct: _____

Improvement: _____

Convert Meters and Centimeters to Centimeters

1.	1 m =	cm
2.	2 m =	cm
3.	3 m =	cm
4.	7 m =	cm
5.	5 m =	cm
6.	9 m =	cm
7.	4 m =	cm
8.	8 m =	cm
9.	6 m =	cm
10.	1 m 10 cm =	cm
11.	1 m 20 cm =	cm
12.	1 m 30 cm =	cm
13.	1 m 70 cm =	cm
14.	1 m 75 cm =	cm
15.	1 m 65 cm =	cm
16.	1 m 64 cm =	cm
17.	1 m 53 cm =	cm
18.	1 m 42 cm =	cm
19.	2 m 42 cm =	cm
20.	8 m 42 cm =	cm
21.	5 m 29 cm =	cm
22.	3 m 89 cm =	cm

23.	1 m 1 cm =	cm
24.	1 m 2 cm =	cm
25.	1 m 3 cm =	cm
26.	1 m 9 cm =	cm
27.	2 m 9 cm =	cm
28.	3 m 9 cm =	cm
29.	7 m 9 cm =	cm
30.	7 m 4 cm =	cm
31.	4 m 8 cm =	cm
32.	6 m 3 cm =	cm
33.	9 m 5 cm =	cm
34.	2 m 50 cm =	cm
35.	3 m 85 cm =	cm
36.	6 m 31 cm =	cm
37.	6 m 7 cm =	cm
38.	4 m 60 cm =	cm
39.	7 m 25 cm =	cm
40.	4 m 13 cm =	cm
41.	6 m 2 cm =	cm
42.	10 m 3 cm =	cm
43.	10 m 30 cm =	cm
44.	11 m 48 cm =	cm

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Estimate first, and then solve each problem. Model the problem with a tape diagram. Explain if your answer is reasonable.

1. On Monday, a farmer sold 25,196 pounds of potatoes. On Tuesday, he sold 18,023 pounds. On Wednesday, he sold some more potatoes. In all, he sold 62,409 pounds of potatoes.
 - a. About how many pounds of potatoes did the farmer sell on Wednesday? Estimate by rounding each value to the nearest thousand, and then compute.

- b. Find the precise number of pounds of potatoes sold on Wednesday.

- c. Is your precise answer reasonable? Compare your estimate from (a) to your answer from (b). Write a sentence to explain your reasoning.

2. A gas station had two pumps. Pump A dispensed 241,752 gallons. Pump B dispensed 113,916 more gallons than Pump A.
- About how many gallons did both pumps dispense? Estimate by rounding each value to the nearest hundred thousand and then compute.
 - Exactly how many gallons did both pumps dispense?
 - Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.

3. Martin's car had 86,456 miles on it. Of that distance, Martin's wife drove 24,901 miles, and his son drove 7,997 miles. Martin drove the rest.
- About how many miles did Martin drive? Round each value to estimate.
 - Exactly how many miles did Martin drive?
 - Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.

4. A class read 3,452 pages the first week and 4,090 more pages in the second week than in the first week. How many pages had they read by the end of the second week? Is your answer reasonable? Explain how you know using estimation.
5. A cargo plane weighed 500,000 pounds. After the first load was taken off, the airplane weighed 437,981 pounds. Then 16,478 more pounds were taken off. What was the total number of pounds of cargo removed from the plane? Is your answer reasonable? Explain.

2. During the first quarter of the year, 351,875 people downloaded an app for their smartphones. During the second quarter of the year, 101,949 fewer people downloaded the app than during the first quarter. How many downloads occurred during the two quarters of the year?
- Round each number to the nearest hundred thousand to estimate how many downloads occurred during the first two quarters of the year.
 - Determine exactly how many downloads occurred during the first two quarters of the year.
 - Determine if your answer is reasonable. Explain.

3. A local store was having a two-week Back to School sale. They started the sale with 36,390 notebooks. During the first week of the sale, 7,424 notebooks were sold. During the second week of the sale, 8,967 notebooks were sold. How many notebooks were left at the end of the two weeks? Is your answer reasonable?

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Quarterback Brett Favre passed for 71,838 yards between the years 1991 and 2011. His all-time high was 4,413 passing yards in one year. In his second highest year, he threw 4,212 passing yards.

1. About how many passing yards did he throw in the remaining years? Estimate by rounding each value to the nearest thousand and then compute.

2. Exactly how many passing yards did he throw in the remaining years?

3. Assess the reasonableness of your answer in (b). Use your estimate from (a) to explain.