

# EUREKA MATH

A STORY OF UNITS



## Mathematics Curriculum



### Grade 4 • MODULE 1

Place Value, Rounding, and Algorithms for  
Addition and Subtraction

# Homework

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Info for parents: <http://bit.ly/pusdmath>

Video tutorials: <http://embarc.online>

Version 3



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**GRADE 4 • MODULE 1**

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Name \_\_\_\_\_

Date \_\_\_\_\_

1. Label the place value charts. Fill in the blanks to make the following equations true. Draw disks in the place value chart to show how you got your answer, using arrows to show any regrouping.

a.  $10 \times 4$  ones = \_\_\_\_\_ ones = \_\_\_\_\_


b.  $10 \times 2$  tens = \_\_\_\_\_ tens = \_\_\_\_\_


c.  $5$  hundreds  $\times 10 =$  \_\_\_\_\_ hundreds = \_\_\_\_\_


2. Complete the following statements using your knowledge of place value:

- a. 10 times as many as 1 hundred is \_\_\_\_\_ hundreds or \_\_\_\_\_ thousand.
- b. 10 times as many as \_\_\_\_\_ hundreds is 60 hundreds or \_\_\_\_\_ thousands.
- c. \_\_\_\_\_ as 8 hundreds is 8 thousands.
- d. \_\_\_\_\_ hundreds is the same as 4 thousands.

Use pictures, numbers, or words to explain how you got your answer for Part (d).

3. Katrina has 60 GB of storage on her tablet. Katrina's father has 10 times as much storage on his computer. How much storage does Katrina's father have? Use numbers or words to explain how you got your answer.

4. Katrina saved \$200 to purchase her tablet. Her father spent 10 times as much money to buy his new computer. How much did her father's computer cost? Use numbers or words to explain how you got your answer.
5. Fill in the blanks to make the statements true.
- 4 times as much as 3 is \_\_\_\_\_.
  - 10 times as much as 9 is \_\_\_\_\_.
  - 700 is 10 times as much as \_\_\_\_\_.
  - 8,000 is \_\_\_\_\_ as 800.
6. Tomas's grandfather is 100 years old. Tomas's grandfather is 10 times as old as Tomas. How old is Tomas?

Name \_\_\_\_\_

Date \_\_\_\_\_

1. As you did during the lesson, label and represent the product or quotient by drawing disks on the place value chart.

a.  $10 \times 4$  thousands = \_\_\_\_\_ thousands = \_\_\_\_\_


b.  $4$  thousands  $\div 10 =$  \_\_\_\_\_ hundreds  $\div 10 =$  \_\_\_\_\_


2. Solve for each expression by writing the solution in unit form and in standard form.

Expression	Unit Form	Standard Form
$10 \times 3$ tens		
$5$ hundreds $\times 10$		
$9$ ten thousands $\div 10$		
$10 \times 7$ thousands		

3. Solve for each expression by writing the solution in unit form and in standard form.

Expression	Unit Form	Standard Form
$(2 \text{ tens } 1 \text{ one}) \times 10$		
$(5 \text{ hundreds } 5 \text{ tens}) \times 10$		
$(2 \text{ thousands } 7 \text{ tens}) \div 10$		
$(4 \text{ ten thousands } 8 \text{ hundreds}) \div 10$		

4. a. Emily collected \$950 selling Girl Scout cookies all day Saturday. Emily's troop collected 10 times as much as she did. How much money did Emily's troop raise?

- b. On Saturday, Emily made 10 times as much as on Monday. How much money did Emily collect on Monday?

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Rewrite the following numbers including commas where appropriate:

a. 4321 \_\_\_\_\_

b. 54321 \_\_\_\_\_

c. 224466 \_\_\_\_\_

d. 2224466 \_\_\_\_\_

e. 10010011001 \_\_\_\_\_

2. Solve each expression. Record your answer in standard form.

Expression	Standard Form
4 tens + 6 tens	
8 hundreds + 2 hundreds	
5 thousands + 7 thousands	

3. Represent each addend with place value disks in the place value chart. Show the composition of larger units from 10 smaller units. Write the sum in standard form.

a. 2 thousands + 12 hundreds = \_\_\_\_\_

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones



b.  $14 \text{ ten thousands} + 12 \text{ thousands} =$  \_\_\_\_\_

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

4. Use digits or disks on the place value chart to represent the following equations. Write the product in standard form.

a.  $10 \times 5 \text{ thousands} =$  \_\_\_\_\_

How many thousands are in the answer? \_\_\_\_\_

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

b.  $(4 \text{ ten thousands } 4 \text{ thousands}) \times 10 =$  \_\_\_\_\_

How many thousands are in the answer? \_\_\_\_\_

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

c. (27 thousands 3 hundreds 5 ones)  $\times$  10 = \_\_\_\_\_

How many thousands are in your answer? \_\_\_\_\_

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

5. A large grocery store received an order of 2 thousand apples. A neighboring school received an order of 20 boxes of apples with 100 apples in each. Use disks or disks on a place value chart to compare the number of apples received by the school and the number of apples received by the grocery store.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. a. On the place value chart below, label the units, and represent the number 50,679.

--	--	--	--	--	--	--

- b. Write the number in word form.

- c. Write the number in expanded form.

2. a. On the place value chart below, label the units, and represent the number 506,709.

--	--	--	--	--	--	--

- b. Write the number in word form.

- c. Write the number in expanded form.

3. Complete the following chart:

Standard Form	Word Form	Expanded Form
	five thousand, three hundred seventy	
		$50,000 + 300 + 70 + 2$
	thirty-nine thousand, seven hundred one	
309,017		
770,070		

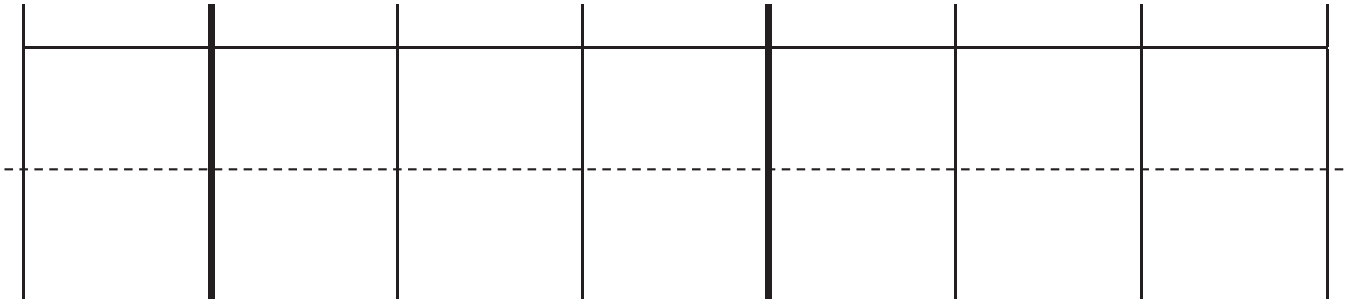
4. Use pictures, numbers, and words to explain another way to say sixty-five hundred.

Name \_\_\_\_\_

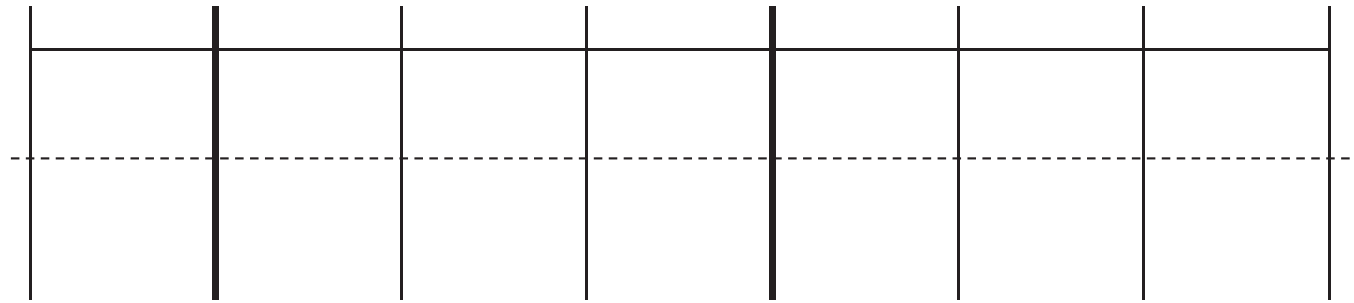
Date \_\_\_\_\_

1. Label the units in the place value chart. Draw place value disks to represent each number in the place value chart. Use  $<$ ,  $>$ , or  $=$  to compare the two numbers. Write the correct symbol in the circle.

a.  $909,013$    $90,013$



b.  $210,005$    $220,005$



2. Compare the two numbers by using the symbols  $<$ ,  $>$ , and  $=$ . Write the correct symbol in the circle.

a. 501,107  89,171

b.  $300,000 + 50,000 + 1,000 + 800$   six hundred five thousand, nine hundred eight

c. 3 hundred thousands 3 thousands 8 hundreds 4 tens  303,840

d. 5 hundreds 6 ten thousands 2 ones  3 ten thousands 5 hundreds 1 one

3. Use the information in the chart below to list the height, in feet, of each skyscraper from shortest to tallest. Then, name the tallest skyscraper.

Name of Skyscraper	Height of Skyscraper (ft)
Willis Tower	1,450 ft
One World Trade Center	1,776 ft
Taipei 101	1,670 ft
Petronas Towers	1,483 ft

4. Arrange these numbers from least to greatest: 7,550 5,070 750 5,007 7,505
5. Arrange these numbers from greatest to least: 426,000 406,200 640,020 46,600
6. The areas of the 50 states can be measured in square miles.

California is 158,648 square miles. Nevada is 110,567 square miles. Arizona is 114,007 square miles. Texas is 266,874 square miles. Montana is 147,047 square miles, and Alaska is 587,878 square miles.

Arrange the states in order from least area to greatest area.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Label the place value chart. Use place value disks to find the sum or difference. Write the answer in standard form on the line.

a. 100,000 less than five hundred sixty thousand, three hundred thirteen is \_\_\_\_\_.


b. Ten thousand more than  $300,000 + 90,000 + 5,000 + 40$  is \_\_\_\_\_.


c. 447,077 is \_\_\_\_\_ than 347,077.


2. Fill in the blank for each equation:

a.  $100,000 + 76,960 =$  \_\_\_\_\_

b.  $13,097 - 1,000 =$  \_\_\_\_\_

c.  $849,000 - 10,000 =$  \_\_\_\_\_

d.  $442,210 + 10,000 =$  \_\_\_\_\_

e.  $172,090 = 171,090 +$  \_\_\_\_\_

f.  $854,121 = 954,121 -$  \_\_\_\_\_



3. Fill in the empty boxes to complete the patterns.

a.

145,555		147,555		149,555	
---------	--	---------	--	---------	--

Explain in pictures, numbers, or words how you found your answers.

b.

	764,321	774,321			804,321
--	---------	---------	--	--	---------

Explain in pictures, numbers, or words how you found your answers.

c.

125,876	225,876		425,876		
---------	---------	--	---------	--	--

Explain in pictures, numbers, or words how you found your answers.

d.

	254,445			224,445	214,445
--	---------	--	--	---------	---------

Explain in pictures, numbers, or words how you found your answers.

4. In 2012, Charlie earned an annual salary of \$54,098. At the beginning of 2013, Charlie's annual salary was raised by \$10,000. How much money will Charlie earn in 2013? Use pictures, words, or numbers to explain your thinking.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Round to the nearest thousand. Use the number line to model your thinking.

a.  $5,900 \approx$  \_\_\_\_\_



b.  $4,180 \approx$  \_\_\_\_\_



c.  $32,879 \approx$  \_\_\_\_\_



d.  $78,600 \approx$  \_\_\_\_\_



e.  $251,031 \approx$  \_\_\_\_\_



f.  $699,900 \approx$  \_\_\_\_\_





Name \_\_\_\_\_

Date \_\_\_\_\_

Complete each statement by rounding the number to the given place value. Use the number line to show your work.

1. a. 67,000 rounded to the nearest ten thousand is \_\_\_\_\_.



2. a. 867,000 rounded to the nearest hundred thousand is \_\_\_\_\_.



- b. 51,988 rounded to the nearest ten thousand is \_\_\_\_\_.



- b. 767,074 rounded to the nearest hundred thousand is \_\_\_\_\_.



- c. 105,159 rounded to the nearest ten thousand is \_\_\_\_\_.



- c. 629,999 rounded to the nearest hundred thousand is \_\_\_\_\_.



3. 491,852 people went to the water park in the month of July. Round this number to the nearest hundred thousand to estimate how many people went to the park. Use a number line to show your work.

4. This number was rounded to the nearest hundred thousand. List the possible digits that could go in the ten thousands place to make this statement correct. Use a number line to show your work.

$$1\_9,644 \approx 100,000$$

5. Estimate the sum by rounding each number to the given place value.

$$164,215 + 216,088$$

- a. Round to the nearest ten thousand.

- b. Round to the nearest hundred thousand.

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Round to the nearest thousand.

a.  $6,842 \approx$  \_\_\_\_\_

b.  $2,722 \approx$  \_\_\_\_\_

c.  $16,051 \approx$  \_\_\_\_\_

d.  $706,421 \approx$  \_\_\_\_\_

e. Explain how you found your answer for Part (d).

2. Round to the nearest ten thousand.

a.  $88,999 \approx$  \_\_\_\_\_

b.  $85,001 \approx$  \_\_\_\_\_

c.  $789,091 \approx$  \_\_\_\_\_

d.  $905,154 \approx$  \_\_\_\_\_

e. Explain why two problems have the same answer. Write another number that has the same answer when rounded to the nearest ten thousand.

3. Round to the nearest hundred thousand.

a.  $89,659 \approx$  \_\_\_\_\_

b.  $751,447 \approx$  \_\_\_\_\_

c.  $617,889 \approx$  \_\_\_\_\_

d.  $817,245 \approx$  \_\_\_\_\_

e. Explain why two problems have the same answer. Write another number that has the same answer when rounded to the nearest hundred thousand.

4. Solve the following problems using pictures, numbers, or words.
- a. At President Obama’s inauguration in 2013, the newspaper headlines stated there were about 800,000 people in attendance. If the newspaper rounded to the nearest hundred thousand, what is the largest number and smallest number of people who could have been there?
- b. At President Bush’s inauguration in 2005, the newspaper headlines stated there were about 400,000 people in attendance. If the newspaper rounded to the nearest ten thousand, what is the largest number and smallest number of people who could have been there?
- c. At President Lincoln’s inauguration in 1861, the newspaper headlines stated there were about 30,000 people in attendance. If the newspaper rounded to the nearest thousand, what is the largest number and smallest number of people who could have been there?



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Round 845,001 to the nearest

a. thousand: \_\_\_\_\_.

b. ten thousand: \_\_\_\_\_.

c. hundred thousand: \_\_\_\_\_.

2. Complete each statement by rounding the number to the given place value.

a. 783 rounded to the nearest hundred is \_\_\_\_\_.

b. 12,781 rounded to the nearest hundred is \_\_\_\_\_.

c. 951,194 rounded to the nearest hundred is \_\_\_\_\_.

d. 1,258 rounded to the nearest thousand is \_\_\_\_\_.

e. 65,124 rounded to the nearest thousand is \_\_\_\_\_.

f. 99,451 rounded to the nearest thousand is \_\_\_\_\_.

g. 60,488 rounded to the nearest ten thousand is \_\_\_\_\_.

h. 80,801 rounded to the nearest ten thousand is \_\_\_\_\_.

i. 897,100 rounded to the nearest ten thousand is \_\_\_\_\_.

j. 880,005 rounded to the nearest hundred thousand is \_\_\_\_\_.

k. 545,999 rounded to the nearest hundred thousand is \_\_\_\_\_.

l. 689,114 rounded to the nearest hundred thousand is \_\_\_\_\_.



Name \_\_\_\_\_

Date \_\_\_\_\_

1. Solve the addition problems below using the standard algorithm.

a. 
$$\begin{array}{r} 7,909 \\ + 1,044 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 27,909 \\ + 9,740 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 827,909 \\ + 42,989 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 289,205 \\ + 11,845 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 547,982 \\ + 114,849 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 258,983 \\ + 121,897 \\ \hline \end{array}$$

g. 
$$\begin{array}{r} 83,906 \\ + 35,808 \\ \hline \end{array}$$

h. 
$$\begin{array}{r} 289,999 \\ + 91,849 \\ \hline \end{array}$$

i. 
$$\begin{array}{r} 754,900 \\ + 245,100 \\ \hline \end{array}$$



Name \_\_\_\_\_

Date \_\_\_\_\_

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

1. There were 3,905 more hits on the school's website in January than February. February had 9,854 hits. How many hits did the school's website have during both months?
  - a. About how many hits did the website have during January and February?

- b. Exactly how many hits did the website have during January and February?

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

2. On Sunday, 77,098 fans attended a New York Jets game. The same day, 3,397 more fans attended a New York Giants game than attended the Jets game. Altogether, how many fans attended the games?
- a. What was the actual number of fans who attended the games?
- b. Is your answer reasonable? Round each number to the nearest thousand to find an estimate of how many fans attended the games.

3. Last year on Ted's farm, his four cows produced the following number of liters of milk:

Cow	Liters of Milk Produced
Daisy	5,098
Betsy	
Mary	9,980
Buttercup	7,087

- a. Betsy produced 986 more liters of milk than Buttercup. How many liters of milk did all 4 cows produce?

- b. Is your answer reasonable? Explain.

Name \_\_\_\_\_

Date \_\_\_\_\_

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

a. 
$$\begin{array}{r} 2,431 \\ - 341 \\ \hline \end{array}$$

b. 
$$\begin{array}{r} 422,431 \\ - 14,321 \\ \hline \end{array}$$

c. 
$$\begin{array}{r} 422,431 \\ - 92,420 \\ \hline \end{array}$$

d. 
$$\begin{array}{r} 422,431 \\ - 392,420 \\ \hline \end{array}$$

e. 
$$\begin{array}{r} 982,430 \\ - 92,300 \\ \hline \end{array}$$

f. 
$$\begin{array}{r} 243,089 \\ - 137,079 \\ \hline \end{array}$$

g.  $2,431 - 920 =$

h.  $892,431 - 520,800 =$

2. What number must be added to 14,056 to result in a sum of 38,773?



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

3. An elementary school collected 1,705 bottles for a recycling program. A high school also collected some bottles. Both schools collected 3,627 bottles combined. How many bottles did the high school collect?

4. A computer shop sold \$356,291 worth of computers and accessories. It sold \$43,720 worth of accessories. How much did the computer shop sell in computers?

5. The population of a city is 538,381. In that population, 148,170 are children.
- How many adults live in the city?

- 186,101 of the adults are males. How many adults are female?

Name \_\_\_\_\_

Date \_\_\_\_\_

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

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

- Jason ordered 239,021 pounds of flour to be used in his 25 bakeries. The company delivering the flour showed up with 451,202 pounds. How many extra pounds of flour were delivered?
- In May, the New York Public Library had 124,061 books checked out. Of those books, 31,117 were mystery books. How many of the books checked out were not mystery books?
- A Class A dump truck can haul 239,000 pounds of dirt. A Class C dump truck can haul 600,200 pounds of dirt. How many more pounds can a Class C truck haul than a Class A truck?

Name \_\_\_\_\_

Date \_\_\_\_\_

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

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

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

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

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

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

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

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

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

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

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?





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?

Name \_\_\_\_\_

Date \_\_\_\_\_

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

1. Gavin has 1,094 toy building blocks. Avery only has 816 toy building blocks. How many more building blocks does Gavin have?

2. Container B holds 2,391 liters of water. Together, Container A and Container B hold 11,875 liters of water. How many more liters of water does Container A hold than Container B?

3. A piece of yellow yarn was 230 inches long. After 90 inches had been cut from it, the piece of yellow yarn was twice as long as a piece of blue yarn. At first, how much longer was the yellow yarn than the blue yarn?

Name \_\_\_\_\_

Date \_\_\_\_\_

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

1. There were 22,869 children, 49,563 men, and 2,872 more women than men at the fair. How many people were at the fair?

2. Number A is 4,676. Number B is 10,043 greater than A. Number C is 2,610 less than B. What is the total value of numbers A, B, and C?

3. A store sold a total of 21,650 balls. It sold 11,795 baseballs. It sold 4,150 fewer basketballs than baseballs. The rest of the balls sold were footballs. How many footballs did the store sell?

Name \_\_\_\_\_

Date \_\_\_\_\_

Using the diagrams below, create your own word problem. Solve for the value of the variable.

1. At the local botanical gardens, there are \_\_\_\_\_

Redwoods and \_\_\_\_\_ Cypress trees.

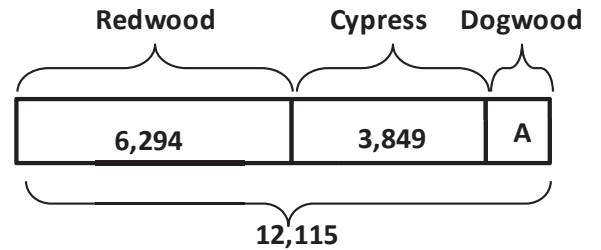
There are a total of \_\_\_\_\_ Redwood,

Cypress, and Dogwood trees.

How many \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_?



2. There are 65,302 \_\_\_\_\_

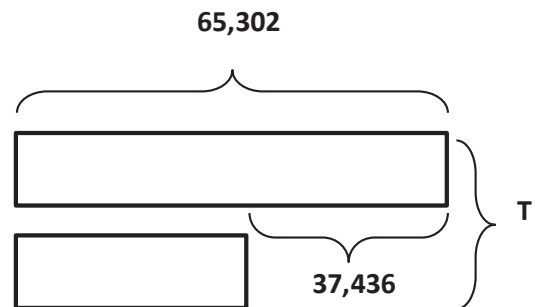
\_\_\_\_\_.

There are 37,436 fewer \_\_\_\_\_

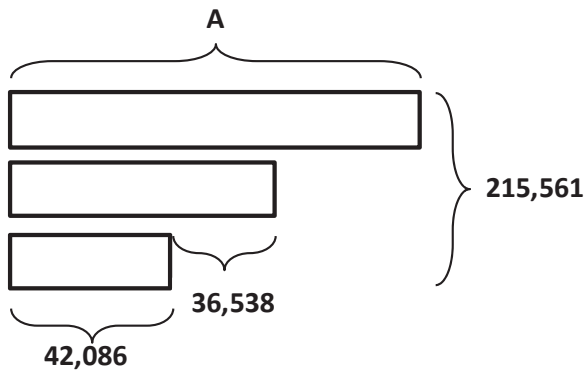
\_\_\_\_\_.

How many \_\_\_\_\_

\_\_\_\_\_?



3. Use the following tape diagram to create a word problem. Solve for the value of the variable.



4. Draw a tape diagram to model the following equation. Create a word problem. Solve for the value of the variable.

$$27,894 + A + 6,892 = 40,392$$

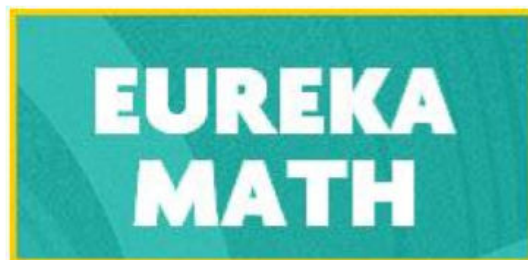












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Video tutorials: <http://embarc.online>



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