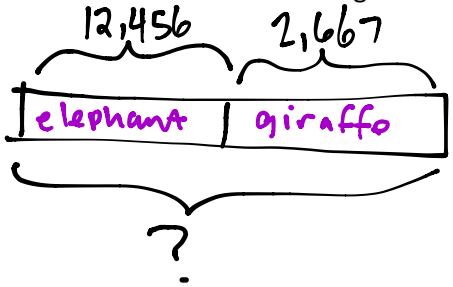
Directions: Draw a tape diagram to model the following problem. Use numbers and words to explain your work.

2. At the zoo, Brooke learned that one of rhinos weighed 4,897 pounds, one of the giraffes weighed 2,667 pounds, one of the African elephants weighed 12,456 pounds, and one of the Komodo dragons weighed 123 pounds.

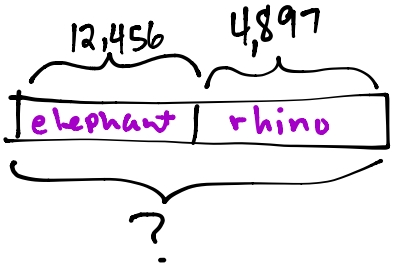
   a. What is the combined weight of the zoo's African elephant and the giraffe?



$$\begin{array}{r} {}^{1}1{}^{1}2,456 \\ +\ 2,667 \\ \hline 15,123 \end{array}$$

15,123 pounds

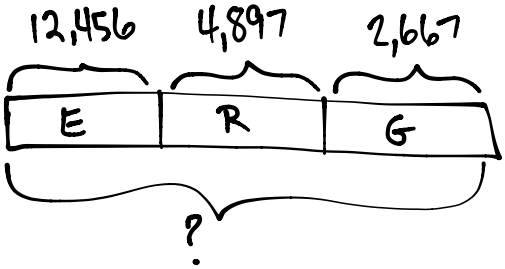
   b. What is the combined weight of the zoo's African elephant and the rhino?



$$\begin{array}{r} {}^{1}1{}^{1}2,456 \\ +\ 4,897 \\ \hline 17,353 \end{array}$$

17,353 pounds

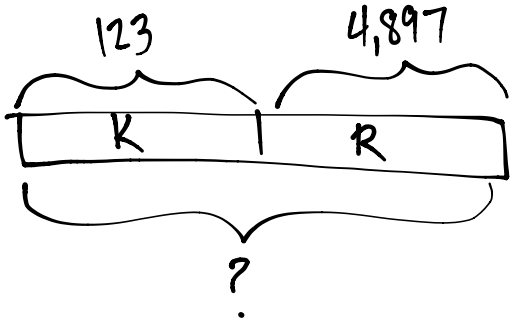
   c. What is the combined weight of the zoo's African elephant, the rhino, and the giraffe?



$$\begin{array}{r} {}^{1}{}^{1}{}^{1}1{}^{1}7{}^{1}5{}^{1}3 \\ +\ 2667 \\ \hline 20,020 \end{array}$$

20,020 pounds

   d. What is the combined weight of the zoo's Komodo dragon and the rhino?



$$\begin{array}{r} {}^{1}4{}^{1}8{}^{1}97 \\ +\ 123 \\ \hline 5020 \end{array}$$

5,020 pounds

Name _____ Date _____

Directions: 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?

F: 9854 ≈ 10,000

J: 9854 + 3905 ≈ 10,000 + 4,000 = 14,000

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

```
  1
 9854
+3905
------
13,759
```

13,759 hits

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

13,759 is close to 14,000.

2. On Sunday, 77,098 fans attended a New York Jets football game. The same day 3,397 more fans attended a New York Giants game than the Jets game. How many football fans watched the Jets and Giants play on Sunday?

   a. What was the actual number of fans who watched the games?

```
  1 1
 77098
+ 3397
-------
 80,495
```

Jets: 77098
Giants: 80,495

```
  1 1
 77098
+80495
-------
157,593
```
total

   b. Is your answer reasonable? Round each number to the nearest thousand to find an estimate of how many fans there are.

Est: 77,000 + 77,000 + 3,000 = 157,000

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

Cow	Liters of Milk Produced
Daisy	5,098
Betsy	8073
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?

1 1
7087
+ 986
8073

3 1
15098
8073
9980
+ 7087
30,238

30,238 liters

b. Is your answer reasonable? Explain.

5098 → 5000
8073 → 8000
9980 → 10000
+ 7087 → 7000
30,000 is close to 30,238

Name _____ Date _____

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

a. 2,431
− 341
2,090

b. 422,431
− 14,321
408,110

c. 422,431
− 92,420
330,011

d. 422,431
− 392,420
30,011

e. 982,430
− 92,300
890,130

f. 243,089
− 137,079
106,010

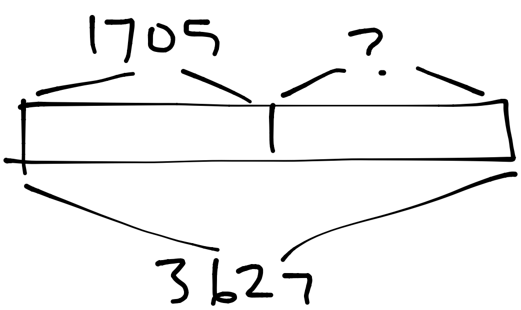
g. 2,431 – 920 = 1511

h. 892,431 – 520,800 =
892,431
− 520,800
371,631

2. What number must be added to 14,056 to result in a sum of 32,713?
32,713
− 14,056
18,657

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

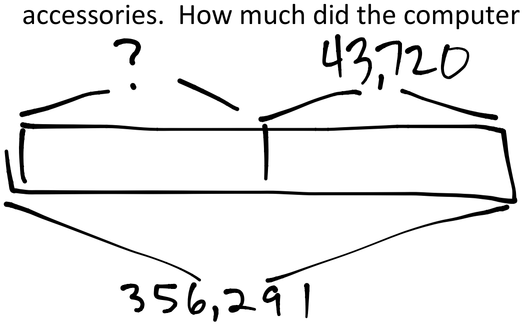
3. An elementary school collected 1,705 bottles for a recycling program. A high school also collected some bottles. Both schools collected 3,627 bottles combined. How many bottles did the high school collect?



3627 − 1705 = 1922

1922

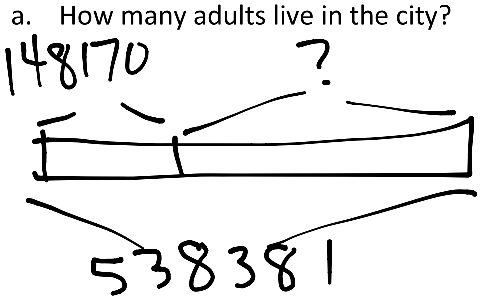
4. A computer shop sold $356,291 worth of computers and accessories. It sold $43,720 worth of accessories. How much did the computer shop sell in computers?



356291 − 43720 = 312,571

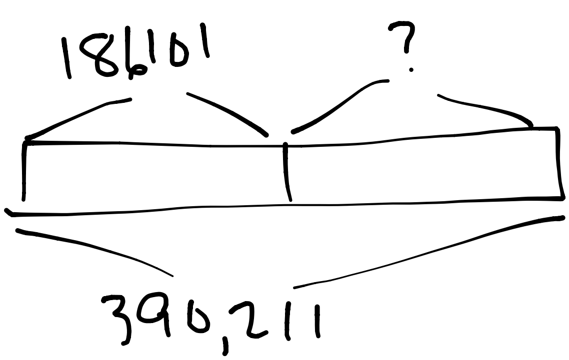
5. The population of a city is 538,381. In that population, 148,170 are children.

a. How many adults live in the city?



538381 − 148170 = 390,211

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



390211 − 186101 = 204,110

Name _____ Date _____

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

a. $71,289 - 21,492 = 50,497$

b. $271,289 - 96,492 = 275,497$

c. $371,089 - 25,192 = 345,897$

d. $879,289 - 721,492 = 158,497$

e. $878,209 - 788,492 = 90,517$

f. $879,989 - 21,070 = 858,919$

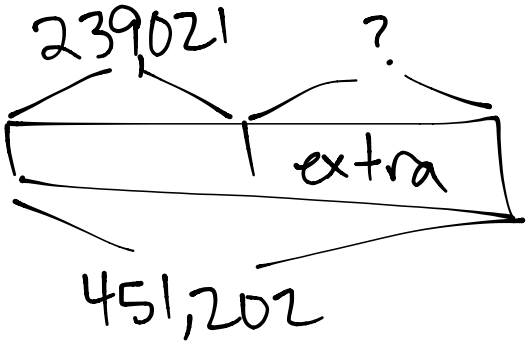
g. $879,000 - 21,989 = 857,011$

h. $279,289 - 191,492 = 87,897$

i. $500,989 - 242,000 = 258,989$

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

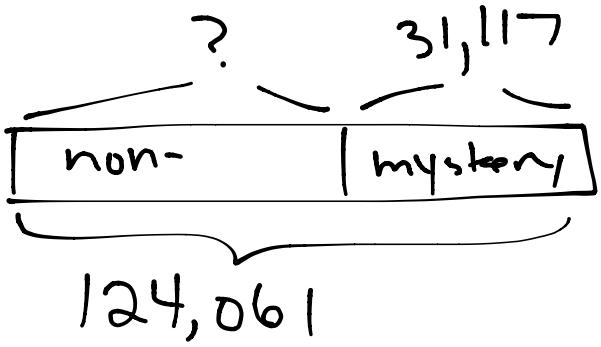
2. Jason ordered 239,021 pounds of flour to be used in his 25 bakeries. The company delivering the flour showed up with 451,202 pounds. How many extra pounds of flour were delivered?



$$\begin{array}{r} {}^{4}\cancel{5}{}^{1}1\,{}^{1}\cancel{8}02 \\ -\,239021 \\ \hline 212,181 \end{array}$$

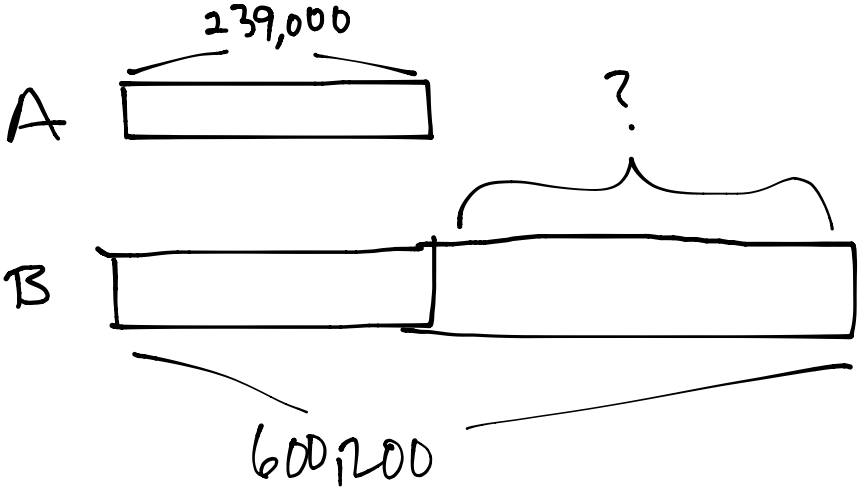
1 extra

3. In May, the New York Public Library had 124,061 books checked out. Of those books, 31,117 were mystery books. How many of checked out books were not mystery books?



$$\begin{array}{r} {}^{0}\cancel{1}{}^{3}2\,{}^{5}\cancel{4}\,{}^{1}0\cancel{6}{}^{1}1 \\ -\,31117 \\ \hline 92,944 \end{array}$$

4. 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?



$$\begin{array}{r} {}^{5}\cancel{6}{}^{9}\cancel{0}{}^{1}0200 \\ -\,239000 \\ \hline 361,200 \end{array}$$

Name _____ Date _____

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

a. $8,164 - 838 = 8,818$

b. $59,656 - 5,880 = 53,776$

c. $759,656 - 579,989 = 179,667$

d. $294,150 - 166,370 = 127,780$

e. $294,150 - 239,089 = 55,061$

f. $1,294,150 - 96,400 = 197,750$

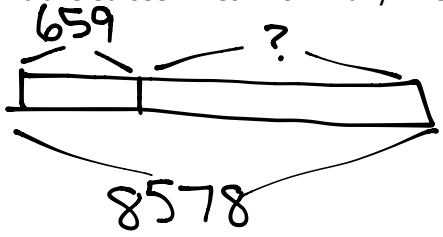
g. $780,500 - 79,989 = 720,511$

h. $800,500 - 45,500 = 755,000$

i. $800,500 - 276,664 = 523,836$

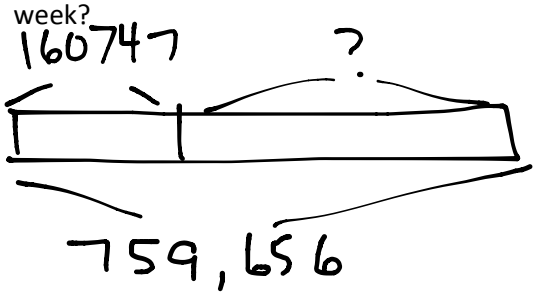
Directions: Use a tape diagram to solve the problems below. Check your answers.

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?



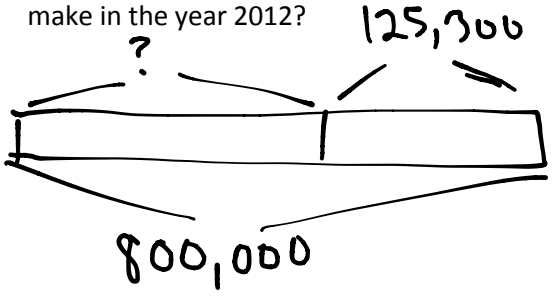
7 8 5 7 8
- 6 5 9
7,9 1 9 miles

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?



7 5 9 6 5 6
- 1 6 0 7 4 7
5 9 8,9 0 9

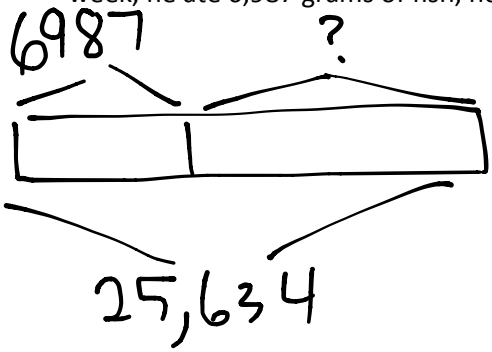
4. Shadow Software Company earned a total of $800,000 selling programs during the year 2012. $125,300 of that amount was used to pay expenses of the company. How much profit did Shadow Software Company make in the year 2012?



8 0 0 0 0 0
- 1 2 5 3 0 0
6 7 4,7 0 0

$674,700 profit

5. At the local aquarium, Bubba the Seal ate a 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?



2 5 6 3 4
- 6 9 8 7
1 8,6 4 7

18,647 grams

Name _____ Date _____

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

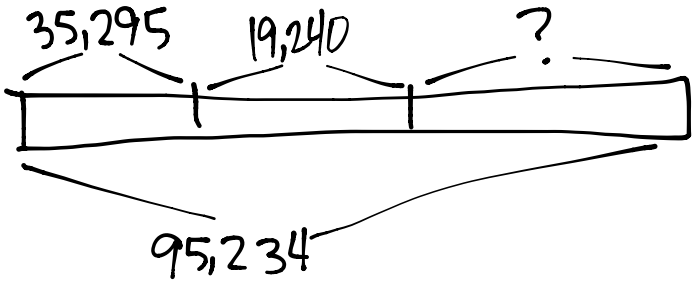
1. Zachary's final project for a college course took a semester to write and had 95,234 words. Zachary wrote 35,295 words the first month and 19,240 words the second month. How many words did he write during the remaining part of the semester?

   a. Round each value to the nearest ten thousand to estimate how many words Zachary wrote during the remaining part of the semester.

95,234 ≈ 100,000 35,295 ≈ 40,000 19,240 ≈ 20,000

40,000+20,000 = 60,000 100,000-60,000 = 40,000 words

   b. Find the exact number of words written during the remaining part of the semester.



35,295 + 19,240 = 54,535

95,234 - 54,535 = 40,699

   c. Use your answer from (a) to explain why your answer in (b) is reasonable.

40,699 words

My answer is reasonable because it is almost equal to my estimate.

2. During the first quarter of the year, 351,875 people purchased a particular 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?

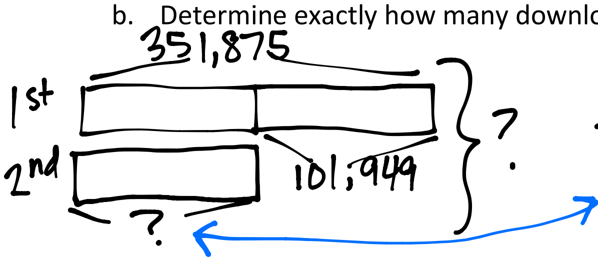
   a. Round each number to the nearest hundred thousand to estimate how many downloads occurred during the first two quarters of the year.

$351{,}875 \approx 400{,}000$

$101{,}949 \approx 100{,}000$

$400{,}000 + 300{,}000 = 700{,}000$

   b. Determine exactly how many downloads occurred during the first two quarters of the year.



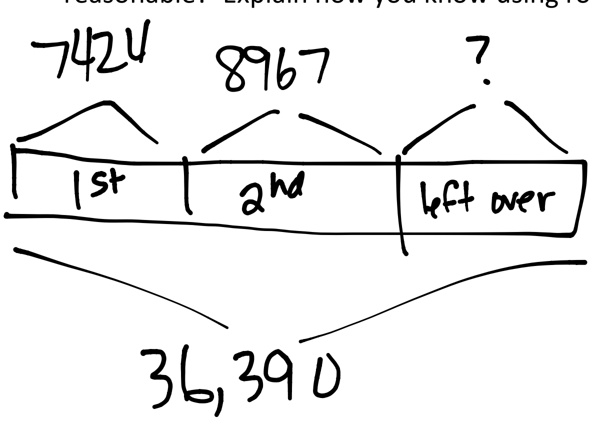
$$351{,}875 - 101{,}949 = 249{,}926$$

$$351875 + 249926 = 601{,}801$$

601,801 apps

   c. 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? Explain how you know using rounding.



$$8967 + 7424 = 16{,}391$$

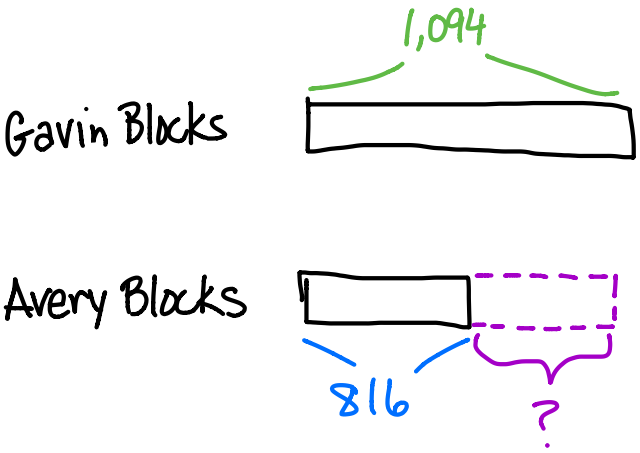
$$36{,}390 - 16391 = 19{,}999$$

19,999 notebooks

Name _____ Date _____

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

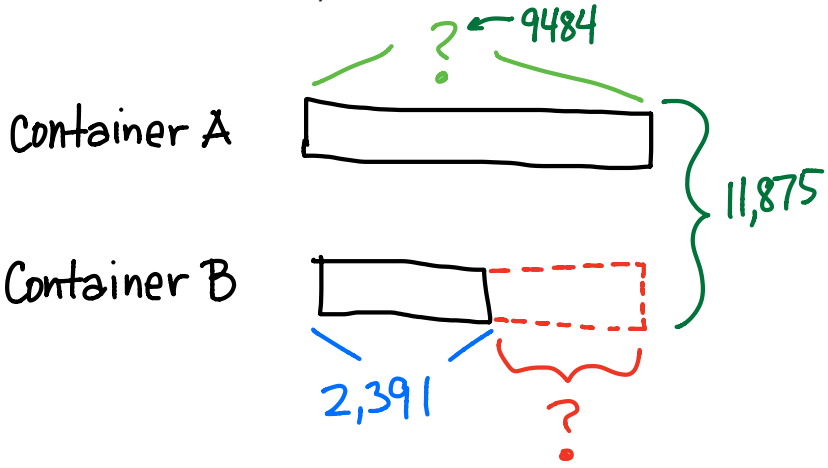
1. Gavin has 1,094 toy building blocks. Avery only has 816 toy building blocks. How many more building blocks does Gavin have?



$$\begin{array}{r} {}^{8}\cancel{0}\,{}^{14}\cancel{9}4 \\ -\ 816 \\ \hline 278 \end{array}$$

Gavin has 278 more blocks than Avery.

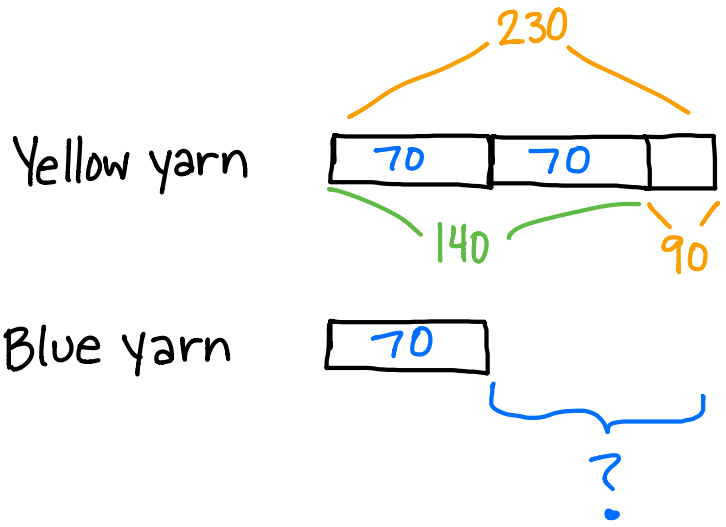
2. Container B holds 2,391 liters of water. Together, Container A and Container B hold 11,875 liters of water. How many more liters of water does Container A hold than Container B?



$$\begin{array}{r} 11\,875 \\ -\ 2\,391 \\ \hline 9\,484 \end{array} \qquad \begin{array}{r} 9\,484 \\ -\ 2\,391 \\ \hline 7\,093 \end{array}$$

Container A holds 7,093 liters more 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?



230
− 90
140

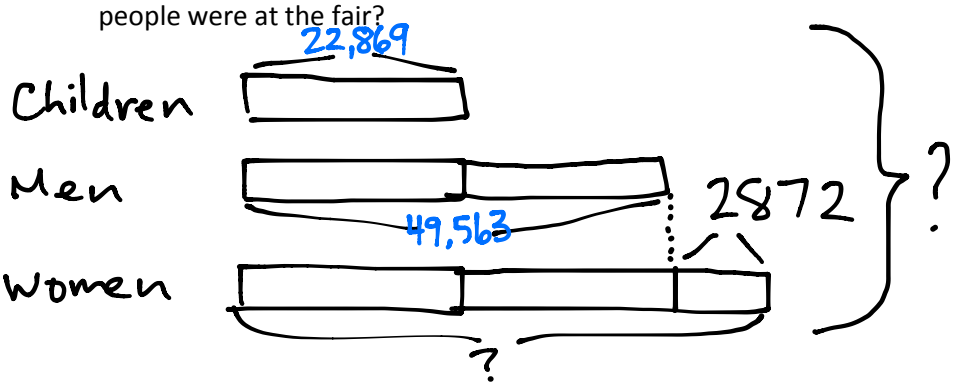
70
+90
160

At first, the yellow yarn was 160 inches longer than the blue.

Name _____ Date _____

Directions: Model each problem using a tape diagram. Solve using numbers and words.

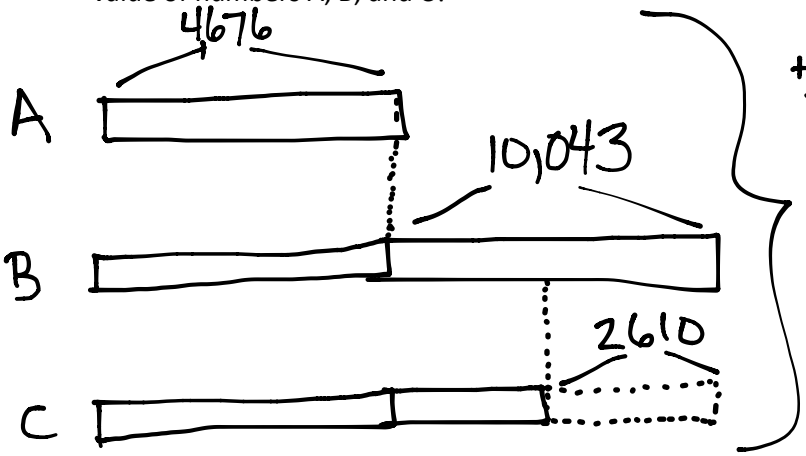
1. There were 22,869 children, 49,563 men, and 2,872 more women than men at the fair. How many people were at the fair?



22869
49563
49563
+ 2872
124867

124,867 people

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?

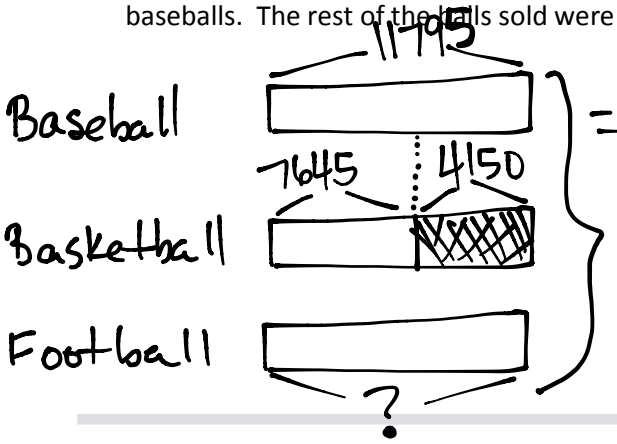


10043
+ 4676
14,719
is B

14719
- 2610
12,109
is C

14676
14719
+ 12109
31,504
total

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?



11795
- 4150
7,645

11795
+ 7645
19,440

21650
- 19440
2210

2,210 footballs

Name _____ Date _____

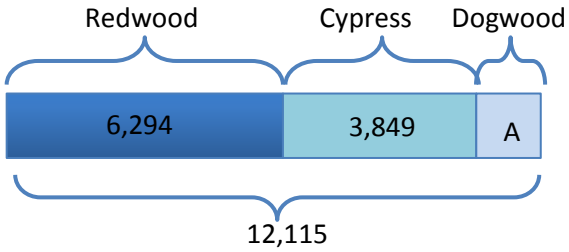
Directions: Using the diagrams below, create your own word problem to solve for the missing variable.

1. At the local botanical gardens, there are 6,294 Redwoods and 3,849 Cypress trees. There are a total of 12,115 Redwood, Cypress, and Dogwood trees.

How many Dogwood trees are there?

_____

_____?



ANSWERS WILL VARY

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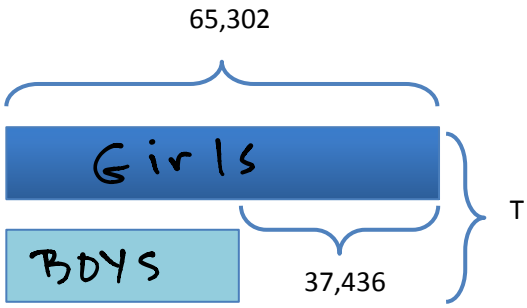
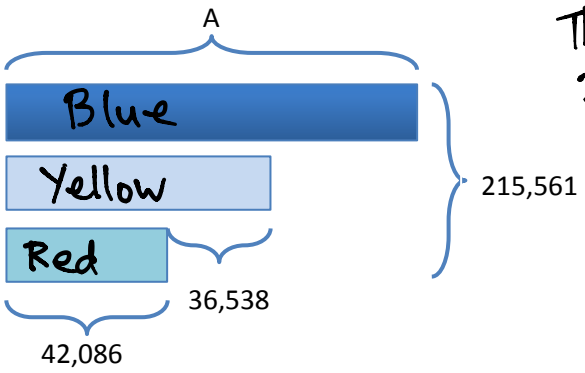
2. There are 65,302 girls in Pleasanton.

There are 37,436 fewer boys in Pleasanton.

How many boys and girls are in Pleasanton?



3. Use the following tape diagram to create a word problem to solve for the missing variable.



Three ribbons have a combined length of 215,561 centimeters. The red ribbon is 42,086 cm long. The yellow ribbon is 36,538 cm longer than the red. How long is the blue ribbon?

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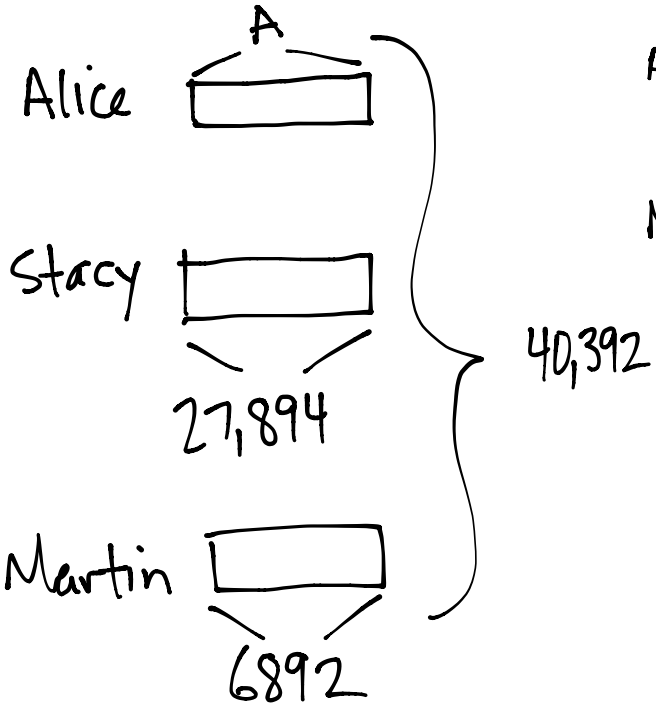
4. Use the equation 27,894 + A + 6,892 = 40,392 to model a tape diagram, create a word problem, and solve.



Alice, Stacy, and Martin scored 40,392 total. Stacy scored 27,894 points and Martin scored 6,892 points. How many points did Alice score?