Name: _____

College: _____

4th Grade Math

Hybrid Learning Packet

Week of:

October 21th – October 27th

Spelman College®

WILLIAM SMITH

Wednesday

Name: _____ October 21, 2020

BCCSG William Smith Spelman

Lesson 13

Learning Target: I can use place value understanding to decompose to smaller units once using the standard subtraction algorithm, and apply the algorithm to solve word problems using tape diagrams.

Do Now

Write 404 in unit form: _____

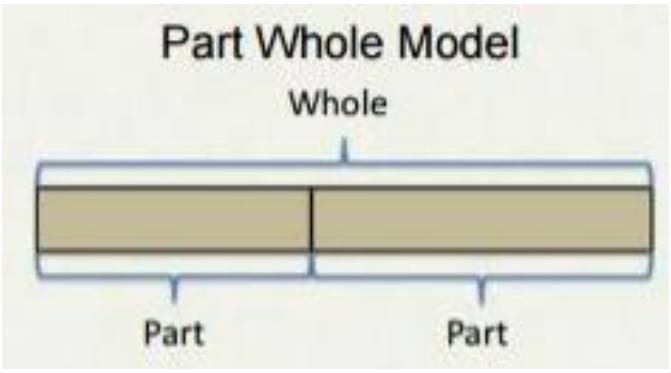
Write 404 - 101 = _____ (write the answer) in unit form:

_____

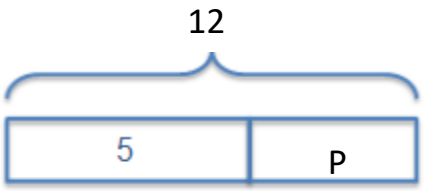
Write the equation in standard form: _____

Input

Tape Diagram for Subtraction:



Example:



5 + P = 12

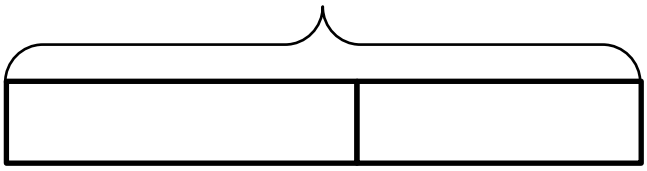
5 + 7 = 12

We can represent an unknown number with a letter, called a _____.

In the example here, the letter _____ is a **variable**.

Problem 1: Use a place value chart and place value disks to model subtracting alongside the algorithm, regrouping 1 hundred into 10 tens.

$$\begin{array}{r} 4{,}259 \\ -\ 2{,}171 \\ \hline \end{array}$$



_____ is the whole. _____ is a part.

What is unknown in this problem? Circle one: Part Whole

So, we can represent the _____ with a variable. Use the variable P.

Model the whole, _____, on the place value chart using place value disks.

thousands	hundreds	tens	ones

Check to see if we are ready to subtract. Are there enough **ones**? Yes / No
Are there enough **tens**? Yes / No

We can unbundle one unit from the _____ place to make _____ tens.

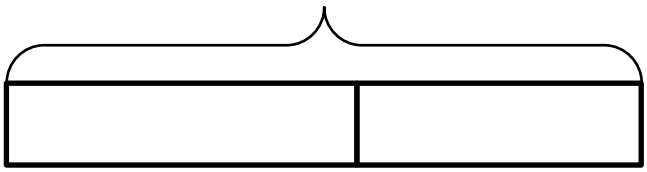
Are there enough **hundreds**? Yes / No
Are there enough **thousands**? Yes / No
Subtract by crossing off place value disks to **take them away**.

4,259 – 2,171 = _____ or ***P*** = _____

Problem 2: Regroup 1 thousand into 10 hundreds using the subtraction algorithm

23,422

- 11,510



_____ is the whole. _____ is a part.

What is unknown in this problem? Circle one: Part Whole

So, we can represent the _____ with a **variable**. Use the variable R.

Model the whole, _____, on the place value chart using place value disks.

Ten thousands	thousands	hundreds	tens	ones

Check to see if we are ready to subtract. Are there enough **ones**? Yes / No
Are there enough **tens**? Yes / No
Are there enough **hundreds**? Yes / No

We can unbundle one unit from the _____ place to make _____ hundreds.

Are there enough **thousands**? Yes / No
Are there enough **ten thousands**? Yes / No
Subtract by crossing off place value disks to **take them away**.

23,422 – 11,510 = _____ or ***R*** = _____

Problem 3: Solve a subtraction word problem, regrouping 1 ten thousand into 10 thousands.

The paper mill produced 73,658 boxes of paper. 8,052 boxes have been sold. How many boxes remain?

Tape Diagram:

\- _____

_____ is the whole. _____ is a part.

What is unknown in this problem? Circle one: Part Whole

So, we can represent the _____ with a variable. Use the variable B.

Model the whole, _____, on the place value chart using place value disks.

Ten thousands	thousands	hundreds	tens	ones

Check to see if we are ready to subtract. Are there enough **ones**? Yes / No
Are there enough **tens**? Yes / No
Are there enough **hundreds**? Yes / No
Are there enough **thousands**? Yes / No
We can unbundle one unit from the _____ place to make _____ thousands.
Are there enough **ten thousands**? Yes / No
Subtract by crossing off place value disks to **take them away**.

_____ – _____ = _____ or ***B*** = _____

Thursday

Name: _____ October 22, 2020

BCCSG William Smith Spelman

Lesson 14

Learning Target: I can use place value understanding to 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.

Do Now

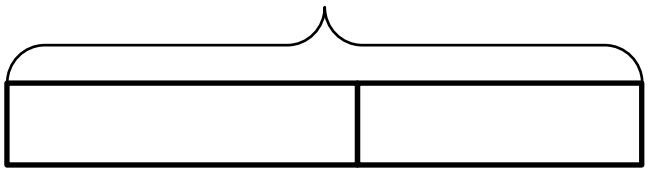
735	7,045	5,725
- 209	- 4,203	- 915

Input

Problem 1: Subtract, decomposing twice.

22,397

- 3,745



Check to see if we are ready to subtract. Are there enough **ones**? Yes / No

Are there enough **tens**? Yes / No

Are there enough **hundreds**? Yes / No

We can unbundle one unit from the _____ place to make _____ hundreds.

Are there enough **thousands**? Yes / No

We can unbundle one unit from the _____ place to make _____ thousands.

Are there enough **ten thousands**? Yes / No

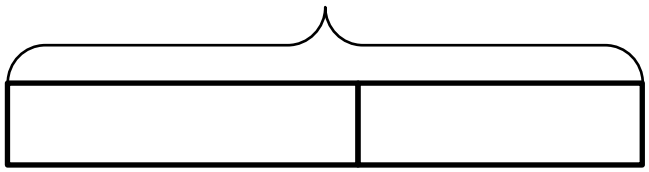
Subtract by crossing off place value disks to **take them away**.

_____ – _____ = _____ or ***P*** = _____

Problem 2: Subtract, decomposing three times.

210,290

- 45,720



Check to see if we are ready to subtract.

Are there enough **ones**? Yes /No

Are there enough **tens**? Yes / No

Are there enough **hundreds**? Yes / No

We can unbundle one unit from the _____ place to make _____ hundreds.

Are there enough **thousands**? Yes / No

We can unbundle one unit from the _____ place to make _____ thousands.

Are there enough **ten thousands**? Yes / No

We can unbundle one unit from the _____ place to make _____ ten thousands.

Subtract by crossing off place value disks to **take them away**.

_____ – _____ = _____ or ***P*** = _____

Problem 3: Use the subtraction algorithm to solve a word problem, modeled with a tape diagram, decomposing units 3 times

Bryce needed to purchase a large order of computer supplies for his company. He was allowed to spend $859,239 on computers. However, he ended up only spending $272,650. How much money was left?

Tape Diagram:

\- _____

_____ is the whole. _____ is a part.

What is unknown in this problem? Circle one: Part Whole

So, we can represent the _____ with a variable. Use the variable D.

Check to see if we are ready to subtract:

Are there enough **ones**? Yes /No
Are there enough **tens**? Yes / No
We can unbundle one unit from the _____ place to make _____ tens.
Are there enough **hundreds**? Yes / No
We can unbundle one unit from the _____ place to make _____ hundreds.
Are there enough **thousands**? Yes / No
Are there enough **ten thousands**? Yes / No
We can unbundle one unit from the _____ place to make _____ ten thousands.

Subtract by crossing off place value disks to **take them away**.

_____ – _____ = _____ or ***P*** = _____

Friday

Name: _____ October 23, 2020
BCCSG William Smith Spelman

Lesson 15

Learning Target: I can 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.

Input

Problem 1: Decompose numbers from 1 thousand into smaller units to subtract, modeled with place value disks.

1,000

- 528

Tape Diagram:

thousands	hundreds	tens	ones

Check to see if we are ready to subtract. Are there enough **ones**? Yes / No
Can we unbundle 1 unit from the tens? Yes / No
Look to the hundreds. Can we unbundle 1 unit from the hundreds? Yes / No
In order to get to 10 tens, we need to regroup 1 _____.
Model with place value disks on your chart like Ms. Sheridan.

_____ – _____ = _____ or ***P*** = _____

Problem 2: Decompose numbers from 1 million into smaller units to subtract, modeled with place value disks.

1,000,000

- 345,528

Tape Diagram:

Check to see if we are ready to subtract. Are there enough **ones**? Yes / No

Can we unbundle 1 unit from the tens? Yes / No

Look to the hundreds. Can we unbundle 1 unit from the hundreds? Yes / No

In order to get to 10 tens, we need to regroup 1 _____.

Use the place value chart on your **whiteboard** to model with place value disks like Ms. Sheridan.

_____ – _____ = _____ or ***P*** = _____

Monday

Name: _____ October 26, 2020

BCCSG William Smith Spelman

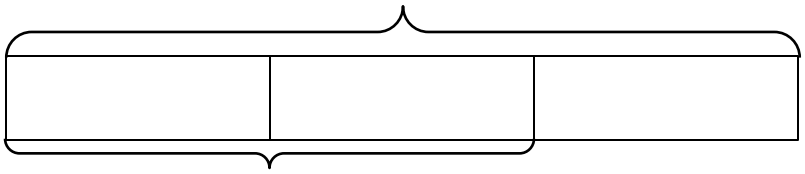
Lesson 16 – Part 1

Learning Target: I can solve two-step word problems using the standard subtraction algorithm fluently modeled with tape diagrams, and assess the reasonableness of answers using rounding.

Input

Problem 1: Solve a two-step word problem, modeled with a tape diagram, assessing reasonableness of the answer using rounding.

A company has 3 locations with 70,010 employees altogether. The first location has 34,857 employees. The second location has 17,595 employees. How many employees work in the third location?



_____ is the whole. _____ is a part. _____ is a part.

What is unknown in this problem? Circle one: Part Whole

Use the variable ***E*** to represent it.

Before solving, estimate to get a sense for what our answer will be. Round each number to the nearest **ten thousand** and solve.

+_____ **-** _____

Estimated number of employees: _____

Now, solve to find the precise number of employees.

+_____ -_____

Compare with your estimate. Are the answers close to each other? Yes / No
Is your answer reasonable? Yes / No

Answer as a sentence: _____

Problem 2: Solve two-step word problems, modeled with a tape diagram, assessing reasonableness of the answer using rounding.

Owen's goal is to have 1 million people visit his new website within the first four months of it being launched. Below is a chart showing the number of visitors each month. How many more visitors does he need in Month 4 to reach his goal?

Month	Month 1	Month 2	Month 3	Month 4
Visitors	228,211	301,856	299,542	

Tape Diagram:

_____ is the whole. _____ is a part. _____ is a part.

What is unknown in this problem? Circle one: Part Whole

Use the variable ***E*** to represent it.

Before solving, estimate to get a sense for what our answer will be. Round each number to the nearest **hundred thousand** and solve.

+_____ **-** _____

Estimated number of visitors: _____

Now, solve to find the <u>precise</u> number of visitors.

+_____ **-** _____

Compare with your estimate. Are the answers close to each other? Yes / No
Is your answer reasonable? Yes / No

Answer as a sentence: _____

Tuesday

Name: _____ October 27, 2020

BCCSG William Smith Spelman

Lesson 16 – Part 2

Learning Target: I can solve two-step word problems using the standard subtraction algorithm fluently modeled with tape diagrams, and assess the reasonableness of answers using rounding.

Do Now

Solve the problem using a tape diagram. Estimate your answer first to make sure it will be reasonable!

Three stores sold 21,353 flowers altogether. The first store sold 3,245 flowers. The second store sold 4,732 flowers. How flowers did the third store sell?

Tape Diagram:

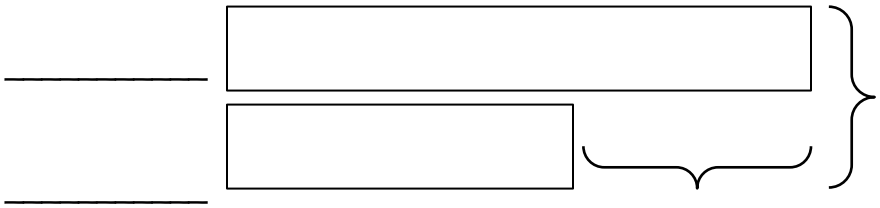
Estimated number of flowers: _____

Actual number of flowers: _____

Input

Problem 3: Solve a two-step, "compare with smaller unknown" word problem.

There were 12,345 people at a concert on Saturday night. On Sunday night, there were 1,795 fewer people at the concert than on Saturday night. How many people attended the concert on both nights?



Before solving, estimate to get a sense for what our answer will be. Round each number to the nearest **thousand** and solve.

- _____ **+** _____

Estimated number of people: _____

Now, solve to find the precise number of employees.

- _____ **+** _____

Compare with your estimate. Are the answers close to each other? Yes / No
Is your answer reasonable? Yes / No

Answer as a sentence: _____