Name _____   Date _____

1. Solve each problem with a written strategy such as a tape diagram, a number bond, the arrow way, the vertical form, or chips on a place value chart.

a. 460 + 200 = _____	b. _____ = 865 − 300	c. _____ + 400 = 598
d. 240 − 190 = _____	e. _____ = 760 − 280	f. 330 − 170 = _____

2. Use the arrow way to fill in the blanks and solve. Use place value drawings if that will help you.

a. $\xrightarrow{\ -400\ }$ $\xrightarrow{\ +10\ }$ 630 → _____ → _____ 630 − _____ = _____	b. $\xrightarrow{\ -\_\_\_\_\ }$ $\xrightarrow{\ +\_\_\_\_\_\ }$ 570 → 270 → 290 570 − _____ = 290	c. $\xrightarrow{\ -400\ }$ $\xrightarrow{\ -40\ }$ ____ → ____ → 518 _____ − 440 = 518

3. Solve.

    Draw a place value chart with chips to model the problems. Show a written subtraction method to check your work.

    ---

    a. 756 + 136 = _____

    Subtraction number sentence:

    ---

    b. 267 + 545 = _____

    Subtraction number sentence:

    Draw a place value chart with chips to model the problems. Show a written addition method to check your work.

    ---

    c. 617 – 229 = _____

    Check:

    ---

d. 700 – 463 = _____

Check:

4. Find the missing numbers to make each statement true. Show your strategy to solve.

a.   300 – 106 = _____

b.   _____ = 407 – 159

c.   410 – 190 = 420 – _____

d.   750 – 180 = _____ – 200

e.   900 – _____ = 600 – 426

5. Martha answered the problem 456 – 378 incorrectly. She does not understand her mistake.

   a.   Explain to Martha what she did wrong using place value language.
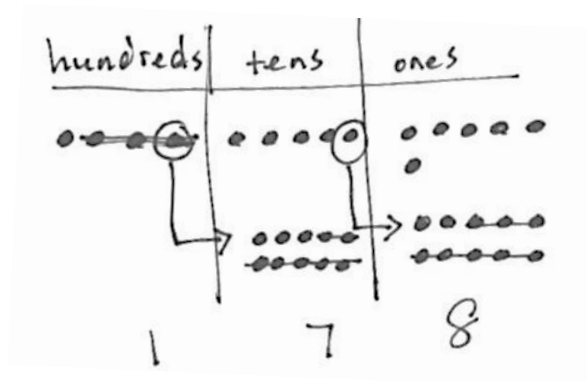
     Explanation:

_____

_____

_____

   b.   Model an alternative strategy for 456 – 378 to help Martha avoid making this mistake again.

End-of-Module Assessment Task Standard Addressed	Topics A–D

Use place value understanding and properties of operations to add and subtract.

2.NBT.7   Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

2.NBT.8   Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

2.NBT.9   Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.)

Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency*. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for students is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the students CAN do now and what they need to work on next.

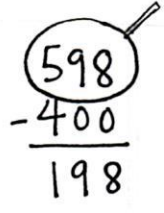| A Progression Toward Mastery				
Assessment Task Item and Standards Assessed	**STEP 1** Little evidence of reasoning without a correct answer. (1 Point)	**STEP 2** Evidence of some reasoning without a correct answer. (2 Points)	**STEP 3** Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)	**STEP 4** Evidence of solid reasoning with a correct answer. (4 Points)
1 **2.NBT.7** **2.NBT.8**	The student solves one to two out of six parts correctly.	The student solves three to four out of six parts correctly.	The student solves five out of six parts correctly.	The student correctly shows a strategy to solve: a. 660 b. 565 c. 198 d. 50 e. 480 f. 160
2 **2.NBT.7** **2.NBT.8**	The student solves zero out of three parts correctly.	The student solves one out of three parts correctly.	The student solves two out of three parts correctly.	The student correctly models the arrow way and solves to find: a. 230, 240, 390, 240 b. -300, +20, 280 c. 958, 558, 958
3 **2.NBT.7** **2.NBT.9**	The student solves one out of four parts correctly.	The student solves two out of four parts correctly.	The student solves three out of four parts correctly.	The student correctly uses place value chips and writes a related subtraction method to solve: a. 892 b. 812 The student correctly uses place value chips and writes a related addition method to solve: c. 388 d. 237

A Progression Toward Mastery				
4 **2.NBT.7**	The student answers one out of five parts correctly.	The student answers two to three out of five parts correctly.	The student answers four out of five parts correctly.	The student correctly shows a strategy to solve (strategies may vary): a. 194 b. 248 c. 200 d. 770 e. 726
5 **2.NBT.7** **2.NBT.9**	The student answers zero out of two parts correctly.	The student answers one out of two parts correctly.	The student gives a partial explanation of Martha's error and correctly models an alternative strategy to solve, *or* the student gives an explanation of Martha's error and a partial model of an alternative strategy.	The student correctly: a. Explains that Martha made an error in the hundreds place while subtracting. b. Models an alternative strategy to solve.

Name __Kathy_____   Date _____

1. Solve each problem with a written strategy such as a tape diagram, a number bond, the arrow way, the vertical form, or chips on a place value chart.

a.	b.	c.
$460 + 200 = \underline{660}$ $460 \xrightarrow{+200} 660$	$\underline{565} = 865 - 300$ $865 \xrightarrow{-300} 565$	$\underline{198} + 400 = 598$ $\begin{array}{r} 598 \\ -400 \\ \hline 198 \end{array}$
d.	e.	f.
$240 - 190 = \underline{50}$ $\boxed{+10 \ \boxed{240}}$ $\boxed{+10 \ \boxed{190}}$ $250 - 200 = 50$	$\underline{480} = 760 - 280$ $760 \xrightarrow{-300} 460 \xrightarrow{+20} 480$	$330 - 170 = \underline{160}$ $330 \xrightarrow{-200} 130 \xrightarrow{+30} 160$

2. Use the arrow way to fill in the blanks and solve. Use place value drawings if that will help you.

a.	b.	c.
$630 \xrightarrow{-400} \underline{230} \xrightarrow{+10} \underline{240}$ $630 - \underline{390} = \underline{240}$	$570 \xrightarrow{-300} 270 \xrightarrow{+20} 290$ $570 - \underline{280} = 290$	$958 \xrightarrow{-400} \underline{558} \xrightarrow{-40} 518$ $\underline{958} - 440 = 518$

3. Solve.

Draw a place value chart with chips to model the problems. Show a written subtraction method to check your work.

a. 756 + 136 = **892**

H   T   O

$$\begin{array}{r} 756 \\ + 136 \\ \hline 892 \end{array}$$

Subtraction number sentence:

892 − 136 = 756

$892 \xrightarrow{-100} 792 \xrightarrow{-30} 762 \xrightarrow{-6} 756$

b. 267 + 545 = **812**

H   T   O

$$\begin{array}{r} 267 \\ + 545 \\ \hline 812 \end{array}$$

Subtraction number sentence:

812 − 267 = 545

$812 \xrightarrow{-200} 612 \xrightarrow{-7} 605 \xrightarrow{-60} 545$

Draw a place value chart with chips to model the problems. Show a written addition method to check your work.

c. 617 − 229 = **388**

H   T   O

$$\begin{array}{r} \overset{5}{\cancel{6}}\overset{10}{\cancel{1}}\overset{17}{\cancel{7}} \\ - 229 \\ \hline 388 \end{array}$$

Check:

388 + 229 = 617

$388 \xrightarrow{+200} 588 \xrightarrow{+20} 608 \xrightarrow{+9} 617$

d. $700 - 463 = \underline{237}$

H	T	O
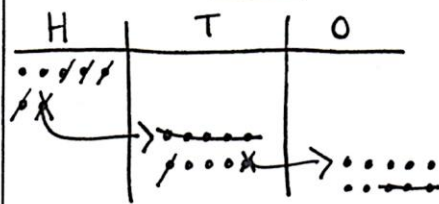
Check:

$237 + 463 = 700$
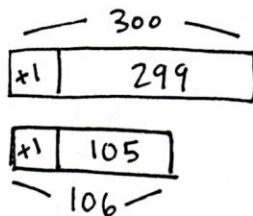
$$\begin{array}{r} 6\,9\,10 \\ \cancel{700} \\ -463 \\ \hline 237 \end{array}$$

$237 \xrightarrow{+400} 637 \xrightarrow{+60} 697 \xrightarrow{+3} 700$

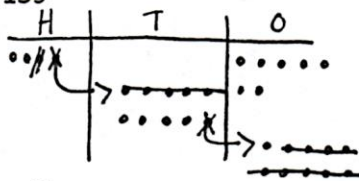4. Find the missing numbers to make each statement true. Show your strategy to solve.
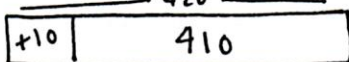
a. $300 - 106 = \underline{194}$

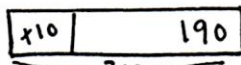$$\begin{array}{r} 299 \\ -105 \\ \hline 194 \end{array}$$

— 300 —
| ×1 | 299 |
| ×1 | 105 |
— 106 —

b. $\underline{248} = 407 - 159$

H	T	O

$$\begin{array}{r} 3\,9\,17 \\ \cancel{407} \\ -159 \\ \hline 248 \end{array}$$

c. $410 - 190 = 420 - \underline{200}$

— 420 —
| +10 | 410 |
| +10 | 190 |
— 200 —

$420 - 200$

d. $750 - 180 = \underline{770} - 200$

— ? —
| +20 | 750 |
| +20 | 180 |
— 200 —
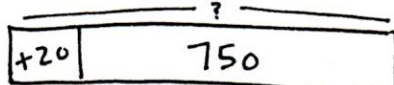
$770 - 200$
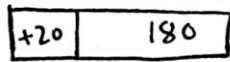
e. $900 - \underline{726} = 600 - 426$
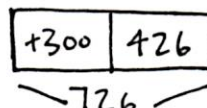
— 900 —
| +300 | 600 |
| +300 | 426 |
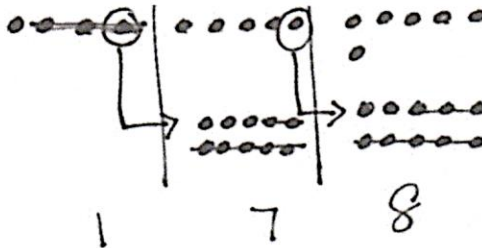— 726 —

$900 - 726$

5. Martha answered the problem 456 – 378 incorrectly. She does not understand her mistake.

   a. Explain to Martha what she did wrong using place value language.

         1   7   8

Explanation:

Martha forgot that she unbundled a hundred and took 3 hundreds from 4 hundreds. She should have taken 3 hundreds from 3 hundreds.

   b. Model an alternative strategy for 456 – 378 to help Martha avoid making this mistake again.

$$378 + \underline{\quad 78 \quad} = 456$$

$$378 \xrightarrow{+2} 380 \xrightarrow{+20} 400 \xrightarrow{+56} 456$$