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 = \_\_\_\_\_\_\_ |

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

|  |  |  |
| --- | --- | --- |
| a.  - 400 +10  630 \_\_\_\_\_\_\_ \_\_\_\_\_\_  630 – \_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_ | b.  –\_\_\_\_\_ +\_\_\_\_\_\_  570 270 290  570 – \_\_\_\_\_\_\_\_\_ = 290 | c.  - 400 - 40  \_\_\_\_ \_\_\_\_ 518  \_\_\_\_\_\_\_\_ – 440 = 518 |

1. 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: |

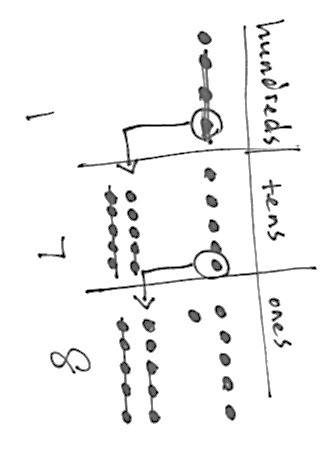
Draw a place value chart with chips to model the problems. Show a written addition method to check your work.

|  |
| --- |
| c. 617 – 229 = \_\_\_\_\_\_  Check: |
| d. 700 – 463 = \_\_\_\_\_\_  Check: |

1. Find the missing numbers to make each statement true. Show your strategy to solve.
2. 300 – 106 = \_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_ = 407 – 159
4. 410 – 190 = 420 – \_\_\_\_\_\_\_\_
5. 750 – 180 = \_\_\_\_\_\_\_\_ – 200
6. 900 – \_\_\_\_\_\_\_\_ = 600 – 426

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

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



Explanation:

* 1. 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:   1. 660 2. 565 3. 198 4. 50 5. 480 6. 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:   1. 230, 240, 390, 240 2. -300, +20, 280 3. 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:   1. 892 2. 812   The student correctly uses place value chips and writes a related addition method to solve:   1. 388 2. 237 |
| **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):   1. 194 2. 248 3. 200 4. 770 5. 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:   1. Explains that Martha made an error in the hundreds place while subtracting. 2. Models an alternative strategy to solve. |

