Grade 2 • Module 4
Addition and Subtraction Within 200 with Word Problems to 100

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Module Assessments .................................................................................................. 4.S.1
Name _______________________________ Date _________________

1. Complete each more/less statement.
   a. 1 more than 66 is _______.
   b. 10 more than 66 is _______.
   c. 1 less than 66 is _______.
   d. 10 less than 66 is _______.
   e. 56 is 10 more than _______.
   f. 88 is 1 less than _______.
   g. _______ is 10 less than 67.
   h. _______ is 1 more than 72.
   i. 86 is ____________ than 96.
   j. 78 is ____________ than 79.

2. Circle the rule for each pattern.
   a. 34, 33, 32, 31, 30, 29
      1 less 1 more 10 less 10 more
   b. 53, 63, 73, 83, 93
      1 less 1 more 10 less 10 more

3. Complete each pattern.
   a. 37, 38, 39, , , ,
   b. 68, 58, 48, , , ,
   c. 51, 50, , , , , 46
   d. 9, 19, , , , , 59
4. Complete each statement to show mental math using the arrow way.

   a. \(39 \rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__

   b. \(32 \rightarrow \)__ \(\rightarrow \__) \(\rightarrow \)__ \(\rightarrow \)__

   c. \(48 \rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__

5. Complete each sequence.

   a. \(45 \rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__

   b. \(61 \rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__ \(\rightarrow \)__

6. Solve each word problem using arrows to record your mental math.

   a. Yesterday Isaiah made 39 favor bags for his party. Today he made 23 more.
      How many favor bags did he make for his party?

   b. There are 61 balloons. 12 blew away. How many are left?
Name ___________________________________________  Date __________________

1. Complete the pattern.

   a. 48, 47, 46, 45, 44, _______, _______, _______

   b. 5, 10, 20, 25, 35, _______, _______, _______

   c. 35, 34, 44, 43, 53, _______, _______, _______

2. Create 2 of your own patterns using one of these rules for each: +1, -1, + 10, or - 10.

   a. _______, _______, _______, _______

      Rule for Pattern (a): _______________________

   b. _______, _______, _______, _______

      Rule for Pattern (b): _______________________

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1. Complete each more/less statement.
   1 more than 37 is _______.
   1 less than 37 is _______.
   10 more than 37 is _______.
   10 less than 37 is _______.
   58 is 10 more than _______.
   29 is 1 less than _______.
   _______ is 10 less than 45.
   _______ is 1 more than 38.
   49 is _______ than 50.
   32 is _______ than 22.

2. Complete each pattern and write the rule.
   a. 44, 45, _____, _____, 48 
      Rule: ________________________
   b. 44, _____, 24, _____, 4 
      Rule: ________________________
   c. 44, _____, _____, 74, 84 
      Rule: ________________________
   d. _____, 43, 42, _____, 40 
      Rule: ________________________
   e. _____, _____, 44, 34, _____ 
      Rule: ________________________
   f. 41, _____, _____, 38, 37 
      Rule: ________________________
3. Label each statement as true or false.
   a. 1 more than 36 is the same as 1 less than 38. ________________
   b. 10 less than 47 is the same as 1 more than 35. ________________
   c. 10 less than 89 is the same as 1 less than 90. ________________
   d. 10 more than 41 is the same as 1 less than 43. ________________

4. Below is a chart of balloons at the county fair.

<table>
<thead>
<tr>
<th>Color of Balloons</th>
<th>Number of Balloons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>59</td>
</tr>
<tr>
<td>Yellow</td>
<td>61</td>
</tr>
<tr>
<td>Green</td>
<td>65</td>
</tr>
<tr>
<td>Blue</td>
<td></td>
</tr>
<tr>
<td>Pink</td>
<td></td>
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</tbody>
</table>

a. Use the following to complete the chart and answer the question.
   - The fair has 1 more blue than red balloons.
   - There are 10 fewer pink than yellow balloons.
   - Are there more blue or pink balloons?

b. If 1 red balloon pops and 10 red balloons fly away, how many red balloons are left? Use the arrow way to show your work.
1. Solve using place value strategies. Use scratch paper to use the arrow way or number bonds, or just use mental math and record your answers.

   a. 5 tens + 3 tens = ______ tens
      2 tens + 7 tens = ______ tens
   
      50 + 30 = _____
      20 + 70 = _____

   b. 24 + 30 = _____
      50 + 24 = _____
      14 + 50 = _____

   c. 20 + 37 = _____
      37 + 40 = _____
      60 + 27 = _____

   d. 57 + _____ = 87
      _____ + 34 = 74
      19 + _____ = 69

   e. _____ + 56 = 86
      38 + _____ = 78
      12 + _____ = 72

2. Solve using place value strategies.

   a. 8 tens - 2 tens = _____ tens
      7 tens - 3 tens = _____ tens
   
      80 - 20 = _____
      70 - 30 = _____

   b. 78 - 40 = _____
      56 - 30 = _____
      88 - 50 = _____

   c. 84 - _____ = 24
      57 - _____ = 37
      93 - _____ = 43

   d. 83 - _____ = 23
      54 - _____ = 34
      91 - _____ = 41
3. Solve.

a. \( 39 + \underline{\quad} = 69 \)

b. \( 8 \text{ tens} 7 \text{ ones} - 3 \text{ tens} = \underline{\quad} \)

c. \( \underline{\quad} + 5 \text{ tens} = 7 \text{ tens} \)

d. \( \underline{\quad} + 5 \text{ tens} 6 \text{ ones} = 8 \text{ tens} 6 \text{ ones} \)

e. \( 48 \text{ ones} - 2 \text{ tens} = \underline{\quad} \text{ tens} \underline{\quad} \text{ ones} \)

4. Mark had 78 puzzle pieces. He lost 30 pieces. How many pieces does Mark have left? Use the arrow way to show your simplifying strategy.
Name _____________________________  Date ________________

Directions: Fill in the missing number to make each statement true.

1. 50 + 20 = ______

2. 4 tens + 3 tens = _____ tens

3. 7 tens - ____ tens = 5 tens

4. _____ - 20 = 63

5. 6 tens + 1 ten 4 ones =  9 tens 4 ones - _____ tens
Name ________________________________ Date __________________

1. Solve using place value strategies.

   a. 2 tens + 3 tens = ____ tens
      20 + 30 = ______

   b. 5 tens + 4 tens = ____ tens
      50 + 40 = ______

   c. 2 tens 4 ones + 3 tens = ____ tens ____ ones
      24 + 30 = ______

   d. 5 tens 9 ones + 4 tens = ____ tens ____ ones
      59 + 40 = ______

   e. 28 + 40 = ______ 18 + 30 = ______ 60 + 38 = ______

   f. 30 + 25 = ______ 35 + 50 = ______ 15 + 20 = ______

   g. 37 + _____ = 47 _____ + 27 = 57 17 + _____ = 87

   h. _____ + 22 = 62 29 + ______ = 79 11 + ______ = 91

2. Find each sum. Then use >, <, or = to compare.

   a. 23 + 40 _____ 20 + 33
d. 64 + 10 _____ 49 + 20

   b. 50 + 18 _____ 48 + 20
e. 70 + 21 _____ 18 + 80

   c. 19 + 60 _____ 39 + 30
f. 35 + 50 _____ 26 + 60
3. Solve using place value strategies.

<table>
<thead>
<tr>
<th>a. 6 tens - 2 tens = ___ tens</th>
<th>b. 8 tens - 5 tens = ___ tens</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 - 20 = ____</td>
<td>80 - 50 = ____</td>
</tr>
<tr>
<td>6 tens 3 ones - 3 tens = ___ tens ___ ones</td>
<td>8 tens 9 ones - 5 tens = ___ tens ___ ones</td>
</tr>
<tr>
<td>63 - 30 = ______</td>
<td>89 - 50 = ______</td>
</tr>
</tbody>
</table>

c. 55 - 20 = _____  
75 - 30 = _____  
85 - 50 = _____

d. 72 - ____ = 22  
49 - ____ = 19  
88 - ____ = 28

e. 67 - ____ = 47  
71 - ____ = 51  
99 - ____ = 69

4. Complete each math phrase.

20 less than 58 is ______.  
36 more than 40 is ______.  

20 less than ______ is 28.  
50 more than ______ is 64.

5. There were 68 plates in the sink at the end of the day. There were 40 plates in the sink at the beginning of the day. How many plates were added throughout the day? Use the arrow way to show your simplifying strategy.
1. Solve each using the arrow way.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>38 + 20</td>
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<tr>
<td>38 + 21</td>
<td></td>
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<tr>
<td>38 + 19</td>
<td></td>
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<tr>
<td>b.</td>
<td></td>
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<tr>
<td>47 + 40</td>
<td></td>
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<tr>
<td>47 + 41</td>
<td></td>
</tr>
<tr>
<td>47 + 39</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>34 - 10</td>
<td></td>
</tr>
<tr>
<td>34 - 11</td>
<td></td>
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<tr>
<td>34 - 9</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
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<tr>
<td>45 - 20</td>
<td></td>
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<tr>
<td>45 - 21</td>
<td></td>
</tr>
<tr>
<td>45 - 29</td>
<td></td>
</tr>
</tbody>
</table>
2. Solve using the arrow way, number bonds, or mental math. Use scratch paper if needed.

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<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>49 + 20 = ______</td>
<td>21 + 49 = ______</td>
</tr>
<tr>
<td>b.</td>
<td>23 + 70 = ______</td>
<td>23 + 71 = ______</td>
</tr>
<tr>
<td>c.</td>
<td>84 - 20 = ______</td>
<td>84 - 21 = ______</td>
</tr>
<tr>
<td>d.</td>
<td>94 - 41 = ______</td>
<td>94 - 39 = ______</td>
</tr>
<tr>
<td>e.</td>
<td>73 - 29 = ______</td>
<td>52 - 29 = ______</td>
</tr>
</tbody>
</table>

3. Jessie's mom buys snacks for his classroom. She buys 22 apples, 19 oranges and 49 strawberries. How many pieces of fruit does Jessie's mom buy?
Lesson 3 Exit Ticket

Name _______________________________  Date _______________

1. Solve using the arrow way or number bonds.

   a. 43 + 30 = _______

   b. 68 + 24 = _______

   c. 82 – 51 = _______

   d. 28 – 19 = _______

2. Show or explain how you used mental math to solve one of the problems above.

   ________________________________

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Name _________________________________  Date ________________

1. Solve using the arrow way. The first set is done for you.

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<table>
<thead>
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</tr>
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<tbody>
<tr>
<td>67 + 20 = 87</td>
<td></td>
<td>56 + 40 =</td>
</tr>
<tr>
<td>67 + 20 87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67 + 21 = 88</td>
<td></td>
<td>56 + 41 =</td>
</tr>
<tr>
<td>67 + 20 87 +1 88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>67 + 19 = 86</td>
<td></td>
<td>56 + 39 =</td>
</tr>
<tr>
<td>67 + 20 87 -1 86</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>68 - 40 =</td>
<td></td>
<td>87 - 50 =</td>
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<td></td>
</tr>
<tr>
<td>68 - 41 =</td>
<td></td>
<td>87 - 51 =</td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69 - 39 =</td>
<td></td>
<td>87 - 49 =</td>
</tr>
</tbody>
</table>
2. Solve using the arrow way, number bonds, or mental math. Use scratch paper if needed.

<table>
<thead>
<tr>
<th>48 - 20</th>
<th>86 - 50</th>
<th>37 + 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>48 - 21</td>
<td>86 - 51</td>
<td>37 + 41</td>
</tr>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>48 - 19</td>
<td>86 - 49</td>
<td>37 + 39</td>
</tr>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>62 + 30</td>
<td>77 - 40</td>
<td>28 + 50</td>
</tr>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>62 + 31</td>
<td>77 - 41</td>
<td>28 + 51</td>
</tr>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
<tr>
<td>62 + 29</td>
<td>77 - 39</td>
<td>28 + 49</td>
</tr>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
</tbody>
</table>

3. Marcy had $84 in the bank. She took $39 out of her account. How much does she have in her account now?

4. Brian has 92 cm of rope. He cuts off a piece 49 cm long to tie a package.
   a. How much rope does Brian have left?
   b. Brian needs another piece 8 cm shorter than the piece used to tie a different package. Does he have enough rope left?
1. Solve. Draw and label a tape diagram to subtract tens. Write the new number sentence.

   a. $23 - 9 = \underline{24 - 10} = \underline{\phantom{0}}$

     [Diagram: Two bars, one labeled 23 and one labeled 9, with a gap for 10]

   b. $32 - 19$

     [Diagram: Two bars, one labeled 32 and the other labeled 19, with a gap for 10]

   c. $50 - 29$

   d. $47 - 28$
2. Solve. Draw and label a tape diagram to add tens. Write the new number sentence.
   a. \(29 + 46\)

\[
\begin{array}{|c|c|c|}
\hline
29 & 1 & 45 \\
\hline
\end{array}
\]

b. \(38 + 45\)

c. \(61 + 29\)

d. \(27 + 68\)
Name ___________________________  Date ___________

1. Solve.
   a. $26 + 38 = $ 
   
   b. $83 - 46 = $ 

2. Craig checked out 28 books at the library. He read and returned some books. He still has 19 books checked out. How many books did Craig return? Draw a tape diagram or number bond to solve.
1. Solve by drawing or completing a tape diagram to subtract 10, 20, 30, 40, etc.

   a. $17 - 9 = _____ 18 - 10 = _____$

   
   \[
   \begin{array}{c}
   \text{18} \\
   +1 \hspace{1cm} \text{17} \\
   +1 \hspace{1cm} \text{9} \\
   \end{array}
   \]

   \[
   \begin{array}{c}
   \text{10} \\
   \end{array}
   \]

   b. $33 - 19$

   \[
   \begin{array}{c}
   \text{14} \hspace{1cm} \text{14} \\
   \end{array}
   \]

   \[
   \begin{array}{c}
   \text{10} \hspace{1cm} \text{10} \\
   \end{array}
   \]

   c. $60 - 29$

   d. $56 - 38$
2. Solve by drawing a number bond to add 10, 20, 30, 40, etc.
   a. \(28 + 43 = 30 + 41 = \) \\
   b. \(49 + 26 = \) \\
   c. \(43 + 19 = \) \\
   d. \(67 + 28 = \)

3. Use a number bond or tape diagram to solve. Write your answer in a complete sentence.
   Kylie has 28 more oranges than Cynthia. Kylie has 63 oranges. How many oranges does Cynthia have?
Name ____________________________ Date ______________

Solve and show your strategy.

1. 39 books were on the top bookshelf. Marcy added 48 more books to the top shelf. How many books are on the top shelf now?

2. There are 53 regular pencils and some colored pencils in the bin. There are a total of 91 pencils in the bin. How many colored pencils are in the bin?

3. Henry solved 24 of his homework problems. There were 51 left to do. How many math problems were there on his homework sheet?
4. Matthew has 68 stickers. His brother has 29 fewer stickers.
   a. How many stickers does Matthew’s brother have?
   
   b. How many stickers do Matthew and his brother have altogether?

5. There are 47 photos in the blue album. The blue album has 32 more photos than the red album.
   a. How many photos are in the red album?
   
   b. How many photos are in the red and blue album altogether?

6. Kiera has 62 blocks and Pete has 37 blocks. They give away 75 blocks. How many blocks do they have left?
Lesson 5 Exit Ticket

Name ___________________________ Date ________________

Solve and show your strategy.

1. A store sold 58 t-shirts and had 25 t-shirts left.
   a. How many t-shirts did the store have at first?
   b. If 17 t-shirts are returned. How many t-shirts does the store have now?

2. Steve swam 23 laps in the pool on Saturday, 28 laps on Sunday, and 36 laps on Monday.
   a. How many laps did Steve swim?
Solve and show your strategy.

1. 38 markers were in the bin. Chase added the 43 markers that were on the floor to the bin. How many markers are in the bin now?

2. There are 29 fewer big stickers on the sticker sheet than little stickers. There are 62 little stickers on the sheet. How many big stickers are there?

3. Rose has 34 photos in a photo album and 41 photos in a box. How many photos does Rose have?
4. Halle has two ribbons. The blue ribbon is 58 cm. The green ribbon is 38 cm longer than the blue ribbon.
   a. How long is the green ribbon?
   b. Halle uses 67 cm of green ribbon to wrap a present. How much green ribbon is left?

5. Chad bought a shirt for $19 and a pair of shoes for $28 more than the shirt.
   a. How much was the pair of shoes?
   b. How much money did Chad spend on the shirt and shoes?
   c. If Chad had $13 left over, how much money did Chad have before buying the shirt and shoes?
Lesson 6 Problem Set

Name ____________________________ Date ________________

1. Solve using mental math if you can. Use your place value chart and number disks to solve those you cannot solve mentally.

   a. 6 + 8 = ______ 30 + 8 = _____ 36 + 8 = ______ 36 + 48 = ______
   b. 5 + 7 = _____ 20 + 7 = _____ 25 + 7 = ______ 25 + 57 = ______

2. Solve the following problems using your place value chart and number disks, composing a ten when necessary. Think about which ones you could solve mentally, too!

   a. 35 + 5 = _____ 35 + 6 = ______
   b. 26 + 4 = _____ 26 + 5 = ______
   c. 54 + 15 = _____ 54 + 18 = ______
   d. 67 + 23 = _____ 67 + 25 = ______
   e. 45 + 26 = _____ 45 + 23 = ______
   f. 58 + 23 = _____ 58 + 25 = ______
   g. 49 + 37 = _____ 52 + 36 = ______
   h. 58 + 23 = _____ 58 + 25 = ______
   i. 49 + 37 = _____ 52 + 39 = ______

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Lesson 6: Use manipulatives to represent the composition of 10 ones as 1 ten with two-digit addends.

Date: 7/4/13

engageNY

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3. There are 47 blue buttons and 25 black buttons in Sean’s drawer. How many buttons are in his drawer?

For early finishers:

4. Leslie has 24 blue and 24 pink hair ribbons. She buys 17 more blue ribbons and 13 more pink ribbons from the store.

   a. How many blue hair ribbons does she have now?

   b. How many pink hair ribbons does she have now?

   c. Jada has 29 more pink ribbons than Leslie. How many pink ribbons does Jada have?
Name ___________________________ Date ________________

Solve using your place value chart and number disks, composing a ten when necessary.

a. $53 + 19 = ______$

b. $44 + 27 = ______$

c. $64 + 28 = ______$
Name ____________________________________________ Date ______________

1. Solve using mental math if you can. Use your place value chart and number disks to solve those you cannot do mentally.
   
a. \(4 + 9 = \) _____ \(30 + 9 = \) _____ \(34 + 9 = \) _____ \(34 + 49 = \) _____

b. \(6 + 8 = \) _____ \(20 + 8 = \) _____ \(26 + 8 = \) _____ \(26 + 58 = \) _____

2. Solve the following problems using your place value chart and number disks, composing a ten when necessary.
   
a. \(21 + 9 = \) _____ \(22 + 9 = \) _____

b. \(28 + 2 = \) _____ \(28 + 4 = \) _____

c. \(32 + 16 = \) _____ \(34 + 17 = \) _____

d. \(47 + 23 = \) _____ \(47 + 25 = \) _____

e. \(53 + 35 = \) _____ \(58 + 35 = \) _____

f. \(58 + 42 = \) _____ \(58 + 45 = \) _____

g. \(69 + 32 = \) _____ \(36 + 62 = \) _____

h. \(77 + 13 = \) _____ \(16 + 77 = \) _____

i. \(59 + 34 = \) _____ \(31 + 58 = \) _____
Solve using a place value chart.

3. Melissa has 36 more crayons than her brother. Her brother has 49 crayons. How many crayons does Melissa have?

4. There were 67 candles on Grandma’s birthday cake and 26 left in the box. How many candles were there in all?

5. Frank’s mother gave him $25 to save. If he already had $38 saved, how much money does Frank have saved now?
Lesson 7 Problem Set

1. Solve the following problems using the vertical method, your place value chart and number disks. Bundle a ten when necessary. Think about which ones you can solve mentally, too!

   a. 22 + 8  
       21 + 9  

   b. 34 + 17  
       33 + 18  

   c. 48 + 34  
       46 + 36  

   d. 27 + 68  
       26 + 69
Extra Practice for Early Finishers: Solve the following problems using your place value chart and number disks. Bundle a ten when necessary.

2. Samantha brought grapes to school for a snack. She had 27 green grapes and 58 red grapes. How many grapes did she bring to school?

3. Thomas read 29 pages of his new book on Monday. On Tuesday, he read 35 more pages than he did on Monday.
   
   a. How many pages did Thomas read on Tuesday?
   
   b. How many pages did Thomas read on both days?
Lesson 7 Exit Ticket

Name _______________________________ Date ________________

1. Solve the following problems using your place value chart and number disks, bundle a ten when necessary.
   a. 47 + 34
   b. 54 + 27

2. Explain how Problem 1(a) can help you solve Problem 1(b).
Lesson 7 Homework

Name ________________________________  Date ______________

1. Solve the following problems using your place value chart and number disks, bundle a ten when necessary.
   a. \(31 + 9\)  \(32 + 8\)
   b. \(42 + 18\)  \(43 + 17\)
   c. \(26 + 67\)  \(28 + 65\)

2. Add the bottom numbers to find the missing number above it.
   
   18  23  29
Directions: Solve the following problems using your place value chart and number disks. Bundle a ten when necessary.

3. Jahsir counted 63 flowers by the door and 28 flowers on the windowsill. How many flowers were by the door and window?

4. Antonio's string is 38 centimeters longer than his reading book. The length of his reading book is 26 centimeters.
   a. What is the length of Antonio's string?
   b. The length of Antonio's reading book is 20 cm shorter than the length of his desk. How long is Antonio's desk?
1. Solve vertically. Draw and bundle place value disks on the place value chart.

   a. $27 + 15 = \underline{\phantom{000}}$

   b. $44 + 26 = \underline{\phantom{000}}$

   c. $48 + 31 = \underline{\phantom{000}}$

   d. $33 + 59 = \underline{\phantom{000}}$
Use math drawings to represent the composition and relate drawings to a written method.

2. There are 23 laptops in the computer room and 27 laptops in the first-grade classroom. How many laptops are in the computer room and first-grade classroom altogether?

For early finishers:

3. Mrs. Anderson gave 36 pencils to her class and had 48 left over. How many pencils did Mrs. Anderson have at first?
Use place value language to explain Zane’s mistake. Then, solve using the written addition. Draw and bundle number disks on your place value chart.

<table>
<thead>
<tr>
<th>Zane’s Answer</th>
<th>Zane’s Mistake</th>
<th>My Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 59 + 35 = _____</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Solve vertically. Draw and bundle place value disks on the place value chart.

   a. $26 + 35 = \underline{\quad}$

   b. $28 + 14 = \underline{\quad}$

   c. $35 + 27 = \underline{\quad}$

   d. $23 + 46 = \underline{\quad}$
Lesson 8 Homework

2. Solve. Draw and bundle place value disks on the place value chart.
   a. 28 second-grade students went on a field trip to the zoo. The other 24 students stayed at school. How many second-grade students are there?

   b. Alice cut a 27 cm piece of ribbon and had 39 cm of ribbon left over. How much ribbon did Alice have at first?
Name ______________________________ Date ________________

1. Solve using the algorithm. Draw and bundle chips on the place value chart.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</table>

a. 123 + 16 = _________

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

b. 111 + 79 = __________

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

c. 109 + 33 = __________
Lesson 9 Problem Set

Use math drawings to represent the composition when adding a two-digit to a three-digit addend.

2. Jose sold 127 books in the morning. He sold another 35 books in the afternoon. At the end of the day he had 19 books left.
   a. How many books did Jose sell?
   b. How many books did Jose have at the beginning of the day?

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Solve vertically. Draw and bundle chips on the place value chart.

d. $57 + 138 = \phantom{000}$
1. Solve using the algorithm. Write a number sentence for the problem modeled on the place value chart.

   136 + 39 = ________

2. Solve using the algorithm. Draw and bundle chips on the place value chart.

   136 + 39 = ________
Name ___________________________  Date ______________

1. Solve using the algorithm. Draw and bundle chips on the place value chart.
   a. 127 + 14 = ________  
      
      Hundreds  |  Tens  |  Ones  
      
   b. 135 + 46 = ________  
      
      Hundreds  |  Tens  |  Ones  
      
   c. 108 + 37 = ________  
      
      Hundreds  |  Tens  |  Ones  
      

2. Solve using the algorithm. Write a number sentence for the problem modeled on the place value chart.

Solve using the algorithm. Draw and bundle chips on the place value chart.

3. Jane made 48 lemon bars and 72 cookies.
   a. How many snacks did Jane make?

   b. Jane made 69 more lemon bars. How many lemon bars does she have?
Name ________________________________ Date ________________

1. Solve using the algorithm. Draw chips and bundle when you can.

<p>| | | |</p>
<table>
<thead>
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</tr>
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<tbody>
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<td></td>
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<td></td>
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</tbody>
</table>

   a. 127 + 18 = ________

   b. 136 + 16 = ________

   c. 109 + 41 = ________

   d. 29 + 148 = ________
Lesson 10 Problem Set

Lesson 10

Use math drawings to represent the composition when adding a two-digit to a three-digit addend.

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e. \(79 + 107 = \) _______

| Hundreds | Tens | Ones |

Before bundling a ten

_____ hundreds _____ tens _____ ones

After bundling a ten

_____ hundreds _____ tens _____ ones

Solve by drawing chips on a place value chart and bundling when needed.

2. a. On Saturday, Colleen earned 4 ten-dollar bills and 18 one-dollar bills working on the farm. How much money did Colleen earn?

b. On Sunday, Colleen earned 3 ten-dollar-bills and 16 one dollar-bills. How much money did she earn on both days?
Lessons 10 Exit Ticket

NYS COMMON CORE MATHEMATICS CURRICULUM

Lesson 10

Use math drawings to represent the composition when adding a two-digit to a three-digit addend.

Solve using the algorithm. Draw chips on the place value chart and bundle when you can.

27 + 137

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
</table>

Using the previous problem, fill in the blanks. Use place value language to explain how you used bundling to rename the solution.

Before bundling a ten

_____ hundreds

_____ tens

_____ ones

After bundling a ten

_____ hundreds

_____ tens

_____ ones

Explanation

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Lesson 10 Homework

NYS COMMON CORE MATHEMATICS CURRICULUM

Lesson 10: Use math drawings to represent the composition when adding a two-digit to a three-digit addend.

Date: 7/4/13

Name __________________________ Date ______________

1. Solve using the algorithm. Draw chips and bundle when you can.

   a. 125 + 17 = _______

   b. 148 + 14 = _______

   c. 107 + 56 = _______

   d. 38 + 149 = _______

   Hundreds | Tens | Ones
Jamie started to solve this problem when she accidently dropped paint on her sheet. Can you figure out what problem she was given and her answer from her work?

e. 1  ______ = ________

_______ + ________ = ________

Solve by drawing chips on a place value chart and bundling when needed.

2. a. In the morning, Mateo borrowed 4 bundles of ten markers and 17 loose markers from the art teacher. How many markers did Mateo borrow?

b. In the afternoon, Mateo borrowed 2 bundles of ten crayons and 15 loose crayons. How many markers and crayons did Mateo borrow in all?
Name ___________________________________________ Date ______________

1. Solve using mental math.
   a. 8 – 7 = _____ 38 – 7 = _____ 38 – 8 = _____ 38 – 9 = _____
   b. 7 – 6 = _____ 87 – 6 = _____ 87 – 7 = _____ 87 – 8 = _____

2. Solve using your place value chart and number disks, unbundling a ten when necessary.
   a. 28 – 7 = _____ 28 – 9 = ______
   b. 25 – 5 = _____ 25 – 6 = ______
   c. 30 – 5 = _____ 33 – 5 = ______
   d. 47 – 22 = _____ 41 – 22 = ______
   e. 44 – 16 = _____ 44 – 26 = ______
   f. 70 – 28 = _____ 80 – 28 = ______
3. Solve $56 - 28$ and explain your strategy.

For early finishers:

4. There are 63 problems on the math test. Tamara answered 48 problems correctly, but the rest were incorrect. How many problems did she answer incorrectly?

5. Mr. Ross has 7 fewer students than Mrs. Jordan. Mr. Ross has 35 students. How many students does Mrs. Jordan have?
1. Solve for the missing part. Use your place value chart and number disks.

   a.
   \[ \begin{array}{c}
   56 \\
   71 \\
   \end{array} \]

   b.
   \[ \begin{array}{c}
   38 \\
   84 \\
   \end{array} \]
Lesson 11 Homework

Name ____________________________ Date _________________

1. Solve using mental math.
   a. \(6 - 5 = \) _____ \(26 - 5 = \) _____ \(26 - 6 = \) _____ \(26 - 7 = \) _____
   b. \(8 - 7 = \) _____ \(58 - 7 = \) _____ \(58 - 8 = \) _____ \(58 - 9 = \) _____

2. Solve using your place value chart and number disks, unbundling a ten when necessary.
   a. \(36 - 5 = \) _____ \(36 - 7 = \) _____
   b. \(37 - 6 = \) _____ \(37 - 8 = \) _____
   c. \(40 - 5 = \) _____ \(41 - 5 = \) _____
   d. \(58 - 32 = \) _____ \(58 - 29 = \) _____
   e. \(60 - 26 = \) _____ \(62 - 26 = \) _____
   f. \(70 - 41 = \) _____ \(80 - 41 = \) _____
3. Solve and explain your strategy.

a. \[41 - 27 = _____\]

b. \[67 - 28 = _____\]

4. The number of marbles in each jar is marked on the front. Miss Clark took 37 marbles out of each jar. How many marbles are left in each jar? Complete the number sentence to find out.

\[____ - _____ = _____\]
\[____ - _____ = _____\]
\[____ - _____ = _____\]
\[____ - _____ = _____\]
1. Sherry made a mistake while subtracting. Explain what her mistake was.

<table>
<thead>
<tr>
<th>44</th>
<th>Explanation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-26</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>
Lesson 12 Homework

1. Use place value disks to solve each problem. Rewrite the problem vertically and record each step as shown in the example.

   a. 34 – 13
      \[
      \begin{array}{c}
      34 \\
      - 13 \\
      \hline
      21
      \end{array}
      \]
      
   b. 41 – 16

   c. 33 – 15
   d. 46 – 18

   e. 62 – 27
   f. 81 – 34
2. Some first and second grade students voted on their favorite drink. The table shows the number of votes for each drink.

<table>
<thead>
<tr>
<th>Drinks</th>
<th>Number of Votes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>28</td>
</tr>
<tr>
<td>Apple Juice</td>
<td>19</td>
</tr>
<tr>
<td>Grape Juice</td>
<td>16</td>
</tr>
<tr>
<td>Fruit Punch</td>
<td>37</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>44</td>
</tr>
</tbody>
</table>

a. How many more students voted for fruit punch than for milk? Show your work.

b. How many more students voted for orange juice than for grape juice? Show your work.

c. How many fewer students voted for apple juice than for milk? Show your work.
1. Solve vertically. Draw a place value chart and chips to model each problem. Show how you change 1 ten for 10 ones when necessary.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. $31 - 19 = _____$</td>
<td>b. $46 - 24 = _____$</td>
</tr>
<tr>
<td>c. $51 - 33 = _____$</td>
<td>d. $67 - 49 = _____$</td>
</tr>
<tr>
<td>e. $66 - 48 = _____$</td>
<td>f. $77 - 58 = _____$</td>
</tr>
</tbody>
</table>
2. Solve $31 - 27$ and $25 - 15$ vertically using the space below. Circle to tell if the number sentence is true or false.

True/False

$31 - 27 = 25 - 15$

3. Solve $78 - 43$ and $81 - 46$ vertically using the space below. Circle to tell if the number sentence is true or false.

True/False

$78 - 43 = 81 - 46$

4. Mrs. Smith has 39 tomatoes in her garden. Mrs. Thompson has 52 tomatoes in her garden. How many fewer tomatoes does Mrs. Smith have than Mrs. Thompson?
Name _________________________________ Date _______________

Directions: Solve vertically. Draw a place value chart and chips to model each problem.

1. $75 - 28 = \underline{\hspace{2cm}}$

2. $63 - 35 = \underline{\hspace{2cm}}$
1. Complete the problem by subtracting vertically. Use the place value chart and chips to model each problem. Show how you change 1 ten for 10 ones when necessary. The first one has been started for you.

a. \[42 - 26 = \underline{\quad}\]

\[\begin{array}{c|c|c}
100's & 10's & 1's \\
\hline
\cdot\cdot\cdot & \cdot & \cdot\cdot\cdot
\end{array}\]

b. \[54 - 28 = \underline{\quad}\]

\[\begin{array}{c|c|c}
100's & 10's & 1's \\
\hline
\cdot\cdot\cdot\cdot & \cdot\cdot\cdot & \cdot
\end{array}\]

c. \[60 - 17 = \underline{\quad}\]

\[\begin{array}{c|c|c}
100's & 10's & 1's \\
\hline
\cdot\cdot\cdot & \cdot & \cdot
\end{array}\]
2. Solve vertically. Draw a place value chart and chips to model each problem. Show how you change 1 ten for 10 ones when necessary.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. $31 - 19 = ________$</td>
<td>b. $47 - 24 = ________$</td>
</tr>
<tr>
<td>c. $51 - 39 = ________$</td>
<td>d. $67 - 44 = ________$</td>
</tr>
<tr>
<td>c. $76 - 54 = ________$</td>
<td>d. $82 - 59 = ________$</td>
</tr>
</tbody>
</table>
Lesson 14 Problem Set

Name ___________________________ Date ______________

1. Solve by writing the problem vertically and checking your result by drawing chips on the place value chart. Change 1 ten for 10 ones when needed.

| a. 134 - 23 = ______ |
| --- | --- | --- |
| Hundreds | Tens | Ones |

| b. 140 - 12 = ______ |
| --- | --- | --- |
| Hundreds | Tens | Ones |

| c. 121 - 14 = ______ |
| --- | --- | --- |
| Hundreds | Tens | Ones |
Lesson 14 Problem Set

Represent subtraction with and without the decomposition when there is a three-digit minuend.

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2. Solve the following problems vertically without a place value chart.

a. 63 - 28 = ______

b. 163 - 28 = ______

d. 161 - 26 = ______

e. 187 - 49 = ______

Hundreds  Tens  Ones

Hundreds  Tens  Ones
Lesson 14 Exit Ticket

Name ___________________________ Date ________________

Solve by writing the problem vertically and checking your result by drawing chips on the place value chart. Change 1 ten for 10 ones when needed.

1. 145 - 28 = ________
   
   Hundreds | Tens | Ones
   
   
2. 151 - 39 = ________
   
   Hundreds | Tens | Ones
   
   
Lesson 14: Represent subtraction with and without the decomposition when there is a three-digit minuend.

7/4/13
1. Solve by writing the problem vertically and checking your result by drawing chips on the place value chart. Change 1 ten for 10 ones when needed.

   a. $156 - 42 = \underline{\hspace{2cm}}$
   
      \begin{tabular}{c|c|c|c}
         & Hundreds & Tens & Ones \\
         \hline
         1 & \_ & \_ & \_ \\
         5 & \_ & \_ & \_ \\
         6 & \_ & \_ & \_ \\
         - & 4 & 2 & \_ \\
         \hline
         & \_ & \_ & \_ \\
      \end{tabular}

   b. $150 - 36 = \underline{\hspace{2cm}}$
   
      \begin{tabular}{c|c|c|c}
         & Hundreds & Tens & Ones \\
         \hline
         1 & \_ & \_ & \_ \\
         5 & \_ & \_ & \_ \\
         0 & \_ & \_ & \_ \\
         - & 3 & 6 & \_ \\
         \hline
         & \_ & \_ & \_ \\
      \end{tabular}

   c. $163 - 45 = \underline{\hspace{2cm}}$
   
      \begin{tabular}{c|c|c|c}
         & Hundreds & Tens & Ones \\
         \hline
         1 & \_ & \_ & \_ \\
         6 & \_ & \_ & \_ \\
         3 & \_ & \_ & \_ \\
         - & 4 & 5 & \_ \\
         \hline
         & \_ & \_ & \_ \\
      \end{tabular}
2. Solve the following problems without a place value chart.

a. 
\[
\begin{array}{c}
134 \\
\hline
-29
\end{array}
\]

b. 
\[
\begin{array}{c}
154 \\
\hline
-37
\end{array}
\]

3. Solve and show your work. Draw a place value chart and chips if needed.

a. Aniyah has 165 seashells. She has 28 more than Ralph. How many seashells does Ralph have?

b. Aniyah and Ralph each give 19 seashells to Harold. How many seashells does Aniyah have left? How many seashells does Ralph have left?
Name __________________________________________  Date _____________

1. Solve each problem using the vertical method. Show the subtraction on the place value chart with chips. Exchange 1 ten for 10 ones when necessary.

   a. 173 - 42

      | Hundreds | Tens | Ones |
      | __________ | _______ | _______ |

   b. 173 - 38

      | Hundreds | Tens | Ones |
      | __________ | _______ | _______ |

   c. 170 - 44

      | Hundreds | Tens | Ones |
      | __________ | _______ | _______ |
d. 150 - 19

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

e. 186 - 57

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

2. Solve the following problems without using a place value chart.

a. 73 - 56

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. 170 - 53

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 15 Exit Ticket

Name ___________________________                  Date ____________

Solve using the vertical method. Show the subtraction on a place value chart with chips. Exchange 1 ten for 10 ones when necessary.

1. 164 - 49
   
   Hundreds | Tens | Ones
   
2. 181 - 73
   
   Hundreds | Tens | Ones
   
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1. Solve each problem using the vertical method. Show the subtraction on the place value chart with chips. Exchange 1 ten for 10 ones when necessary.

<table>
<thead>
<tr>
<th></th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 153 - 31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 153 - 38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. 160 - 37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 15
Represent subtraction with and without the decomposition when there is a three-digit minuend.

15 Homework

2. Lisa solved 166 – 48 vertically and on her place value chart. Explain what Lisa did correctly and what she needs to fix.

\[
\begin{array}{c}
166 \\
-48 \\
\hline
118
\end{array}
\]

a. Lisa correctly

b. Lisa needs to fix
Solve the following word problems. Use the RDW process.

1. Frederick counted a total of 80 flowers in the garden. There were 39 white flowers, and the rest were pink. How many flowers were pink?

2. The clothing store had 42 shirts. After selling some, there were 16 left. How many shirts were sold?

3. There were 26 magazines on Shelf A and 60 magazines on Shelf B. How many more magazines were on Shelf B than Shelf A?
4. Andy spent 71 hours studying in November.
   In December, he studied 19 hours less.
   Rachel studied 22 hours more than Andy studied in December.
   How many hours did Rachel study in December?

5. 36 books are in the blue bin.
   The blue bin has 18 more books than the red bin.
   The yellow bin has 7 more books than the red bin.
   a. How many books were in the red bin?
   a. How many books are in the yellow bin?
Lesson 16 Exit Ticket

Name ______________________________ Date ______________

Solve the following word problems. Use the RDW process.

1. The bookstore sold 83 books on Monday.
   On Tuesday, it sold 46 fewer books than on Monday.
   
   a. How many books were sold on Tuesday?

   b. The bookstore sold 28 more books on Tuesday than on Wednesday.
   How many books did the bookstore sell on Wednesday?
Lesson 16: Solve one- and two-step word problems within 100 using strategies based on place value.

Date: 7/4/13

Solve the following word problems. Use the RDW process.

1. Vicki modeled the following problem with a tape diagram.

82 students are in the math club. 35 students are in the science club. How many more students are in the math club than science club?

Show another model to solve the problem. Write your answer in a sentence.

2. 46 birds sat on a wire. Some flew away, but 29 stayed. How many birds flew away?
   Show your work.
3. Ian bought a pack of 47 water balloons. 19 were red, 16 were yellow, and the rest were blue. How many water balloons were blue? Show your work.

Lesson 17 Problem Set

Name ________________________________ Date ______________

1. Solve mentally.
   a. 2 ones + ________ = 1 ten
      2 + ________ = 10
   b. 2 tens + ________ = 1 hundred
      20 + ________ = 100
   c. 1 ten = ________ + 6 ones
      10 = ________ + 6
   d. 1 hundred = ________ + 6 tens
      100 = ________ + 60

2. Solve mentally.
   a. 3 ones + 7 ones = ________
      3 + 7 = __________
   b. 3 tens + 7 tens = ________
      30 + 70 = __________
   c. 13 tens + 7 tens = ________
      130 + 70 = __________
   d. 6 ones + 4 ones = ________
      6 + 4 = __________
   e. 16 tens + 4 tens = ________
      160 + 40 = __________
   f. 12 ones + 8 ones = ________
      12 + 8 = __________
   g. 12 tens + 8 tens = ________
      120 + 80 = __________
3. Solve.

   a. 9 ones + 4 ones = _____ ten _____ ones
      9 + 4 = _________
      9 tens + 4 tens = _____ hundred _____ tens
      90 + 40 = _________
   
   b. 4 ones + 8 ones = _____ ten _____ ones
      4 + 8 = _________
      4 tens + 8 tens = _____ hundred _____ tens
      40 + 80 = _________
   
   c. 6 ones + 7 ones = _____ ten _____ ones
      6 + 7 = _________
      6 tens + 7 tens = _____ hundred _____ tens
      60 + 70 = _________

4. Fill in the blanks. Rewrite each as an addition sentence with two parts. The first one is done for you.

   a. 24 → +6 → 30 → +70 → 100
      24 + _____ = 100
   
   b. 124 → +6 → ______ → +70 → ______
      124 + _____ = ______
   
   c. 7 → ______ → +90 → +100 → ______
      7 + _____ = ______
   
   d. 70 → ______ → +90 → +10 → ______
      70 + _____ = ______
   
   e. 38 → +2 → ______ → +60 → +30 → ______
      38 + _____ = ______
   
   f. 98 → +2 → ______ → +6 → +40 → ______
      98 + _____ = ______
Lesson 17 Exit Ticket

Name ________________________________  Date ________________

1. Solve mentally.
   a. 4 ones + ________ = 1 ten  4 + ________ = 10
      4 tens + ________ = 1 hundred  40 + ________ = 100
   b. 2 ones + 8 ones = ________  2 + 8 = ________
      2 tens + 18 tens = ________  20 + 180 = ________

2. Fill in the blanks. Rewrite each as an addition sentence with two parts.

   63 + _____ + 10 + 10 + 10

   63 + _____ = _______
Lesson 17 Homework

Name ______________________________ Date _________________

1. Solve mentally.
   a. 4 ones + ________ = 1 ten  
      4 + ________ = 10
      4 tens + ________ = 1 hundred  
      40 + ________ = 100
   b. 1 ten = ________ + 7 ones  
      10 = ________ + 7
      1 hundred = ________ + 7 tens  
      100 = ________ + 70
   c. 1 ten more than 9 ones = ________  
      10 + 9 = ________
      1 hundred more than 9 ones = ________  
      100 + 9 = ________
      1 hundred more than 9 tens = ________  
      100 + 90 = ________

2. Solve mentally.
   a. 2 ones + 8 ones = ________  
      2 + 8 = ________
      2 tens + 8 tens = ________  
      20 + 80 = ________
   b. 5 ones + 6 ones = ________  
      5 + 6 = ________
      5 tens + 6 tens = ________  
      50 + 60 = ________
   c. 14 ones + 4 ones = ________  
      14 + 4 = ________
      14 tens + 4 tens = ________  
      140 + 40 = ________
3. Solve.
   a. 6 ones + 5 ones = ____ ten ____ one
      6 + 5 = __________  
      6 tens + 5 tens = ____ hundred ____ ten
      60 + 50 = __________
   b. 5 ones + 7 ones = ____ ten ____ ones
      5 + 7 = __________  
      5 tens + 7 tens = ____ hundred ____ tens
      50 + 70 = __________
   c. 9 ones + 8 ones = ____ ten ____ ones
      9 + 8 = __________  
      9 tens + 8 tens = ____ hundred ____ tens
      90 + 80 = __________

4. Fill in the blanks. Rewrite each as an addition sentence with two parts. The first one is done for you.
   a. 36 + 94 = 130
   b. 78 + _____ = ______
   c. 61 + _____ = ______
   d. 27 + _____ = ______
Lesson 18 Problem Set

Name ___________________________ Date ________________

1. Solve using your place value chart and number disks.

   a. $80 + 30 = \underline{\hspace{1cm}}$  \hspace{2cm} $90 + 40 = \underline{\hspace{1cm}}$

   b. $73 + 38 = \underline{\hspace{1cm}}$  \hspace{2cm} $73 + 49 = \underline{\hspace{1cm}}$

   c. $93 + 38 = \underline{\hspace{1cm}}$  \hspace{2cm} $42 + 99 = \underline{\hspace{1cm}}$

   d. $84 + 37 = \underline{\hspace{1cm}}$  \hspace{2cm} $69 + 63 = \underline{\hspace{1cm}}$

   e. $113 + 78 = \underline{\hspace{1cm}}$  \hspace{2cm} $128 + 72 = \underline{\hspace{1cm}}$

2. Circle the statements that are true as you solve each problem using number disks.

<table>
<thead>
<tr>
<th>$47 + 123$</th>
<th>$97 + 54$</th>
</tr>
</thead>
<tbody>
<tr>
<td>I change 10 ones for 1 ten.</td>
<td>I change 10 ones for 1 ten.</td>
</tr>
<tr>
<td>I change 10 tens for 1 hundred.</td>
<td>I change 10 tens for 1 hundred.</td>
</tr>
<tr>
<td>The total of the two parts is 160.</td>
<td>The total of the two parts is 141.</td>
</tr>
<tr>
<td>The total of the two parts is 170.</td>
<td>The total of the two parts is 151.</td>
</tr>
</tbody>
</table>
3. Write an addition sentence that corresponds to the following number bond. Solve the problem using your number disks and fill in the missing total.

![Number bond diagram](image)

4. There are 50 girls and 80 boys in the after school program. How many children are in the after school program?

5. Kim and Stacy solved $83 + 39$. Kim's answer was less than 120. Stacy's answer was more than 120. One of the answers was correct. Whose answer was incorrect? Explain how you know using words, pictures, or numbers.
Lesson 18 Exit Ticket

Name ____________________________ Date ______________

1. Solve using your place value chart and number disks.

   a. $46 + 54 = \underline{\hspace{1cm}}$

   b. $49 + 56 = \underline{\hspace{1cm}}$

   c. $28 + 63 = \underline{\hspace{1cm}}$

   d. $67 + 89 = \underline{\hspace{1cm}}$

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Lesson 18: Use manipulatives to represent additions with two compositions.
7/4/13

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1. Solve using your place value chart and number disks.
   
   a. \(20 + 90 = \) _______  \(60 + 70 = \) _______
   
   b. \(29 + 93 = \) _______  \(69 + 72 = \) _______
   
   c. \(45 + 86 = \) _______  \(46 + 96 = \) _______
   
   d. \(47 + 115 = \) _______  \(47 + 95 = \) _______
   
   e. \(28 + 72 = \) _______  \(128 + 72 = \) _______

2. Circle the statements that are true as you solve each problem using number disks.

\[
\begin{array}{ll}
68 + 51 & 127 + 46 \\
I \text{ change 10 ones for 1 ten.} & I \text{ change 10 ones for 1 ten.} \\
I \text{ change 10 tens for 1 hundred.} & I \text{ change 10 tens for 1 hundred.} \\
The \text{ total of the two parts is 109.} & The \text{ total of the two parts is 163.} \\
The \text{ total of the two parts is 119.} & The \text{ total of the two parts is 173.} \\
\end{array}
\]
3. Solve the problem using your number disks and fill in the missing total. Then, write an addition sentence that relates to the number bonds.

```
86
57
```
Addition Sentence: __________________________

```
129
78
```
Addition Sentence: __________________________

4. Find the missing sum for each number sentence.

a. \[45 + 55 = \]

b. \[78 + 33 = \]

c. \[37 + 84 = \]
1. Solve the following problems using the vertical written algorithm, your place value chart, and number disks. Bundle a ten or hundred when necessary. Show your work for each problem.

a. \(72 + 19\) \(\quad\) \(28 + 91\)

b. \(68 + 61\) \(\quad\) \(97 + 35\)

c. \(68 + 75\) \(\quad\) \(96 + 47\)

d. \(177 + 23\) \(\quad\) \(146 + 54\)
2. 38 fewer girls attended summer camp than boys. 79 girls attended.

   a. How many boys attended summer camp?

   b. How many children attended summer camp?
1. Solve the following problems using the vertical written algorithm, your place value chart, and number disks. Bundle a ten or hundred when necessary. Show your work for each problem.

   a. $47 + 85$

   b. $128 + 39$
Lesson 19: Relate manipulative representations to a written method.

Date: 7/4/13

1. Solve the following problems using the vertical written algorithm, your place value chart and number disks. Bundle a ten or hundred when necessary. Show your work for each problem.

   a. 84 + 37
      42 + 79
   
   b. 58 + 56
      46 + 96
   
   c. 75 + 69
      48 + 94
   
   d. 162 + 38
      156 + 44
2. 74 trees were planted in the garden. 49 more bushes were planted than trees.

   a. How many bushes were planted in the garden?

   b. How many trees and bushes were planted?
<p>| 9 + _ = 10 | 2 + 9 |
| 9 + 3 | 4 + 9 |
| 5 + _ = 14 | 9 + 6 |
| 7 + 9 | 9 + _ = 17 |
| 9 + 9 | 10 + 9 |</p>
<table>
<thead>
<tr>
<th>8 + __ = 9</th>
<th>2 + 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 + 3</td>
<td>4 + 8</td>
</tr>
<tr>
<td>5 + 8</td>
<td>8 + 6</td>
</tr>
<tr>
<td>8 + __ = 15</td>
<td>8 + 8</td>
</tr>
<tr>
<td>9 + __ = 17</td>
<td>10 + 8</td>
</tr>
</tbody>
</table>

Lesson 19: Relate manipulative representations to a written method.

Date: 7/4/13
<table>
<thead>
<tr>
<th>+</th>
<th>=</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>_</td>
</tr>
<tr>
<td>7</td>
<td>_</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>
Lesson 19: Relate manipulative representations to a written method.

Date: 7/4/13

6 + __ = 9
6 + 5
7 + 6
9 + __ = 15

6 + 2
4 + 6
6 + __ = 12
8 + 6
6 + 10

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<table>
<thead>
<tr>
<th>5 + 1</th>
<th>2 + 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 + _ = 8</td>
<td>4 + _ = 9</td>
</tr>
<tr>
<td>5 + 5</td>
<td>6 + _ = 11</td>
</tr>
<tr>
<td>7 + 5</td>
<td>5 + 8</td>
</tr>
<tr>
<td>5 + _ = 14</td>
<td>10 + 5</td>
</tr>
<tr>
<td>4 + 1</td>
<td>2 + 4</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>4 + _ = 7</td>
<td>4 + _ = 8</td>
</tr>
<tr>
<td>4 + 5</td>
<td>6 + _ = 10</td>
</tr>
<tr>
<td>7 + 4</td>
<td>4 + 8</td>
</tr>
<tr>
<td>4 + _ = 13</td>
<td>10 + 4</td>
</tr>
<tr>
<td>1 + 3</td>
<td>2 + 3</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>3 + _ = 6</td>
<td>4 + 3</td>
</tr>
<tr>
<td>3 + 5</td>
<td>6 + 3</td>
</tr>
<tr>
<td>7 + _ = 10</td>
<td>3 + _ = 11</td>
</tr>
<tr>
<td>3 + 9</td>
<td>13 = 3 + _</td>
</tr>
<tr>
<td>2 + 1</td>
<td>2 + 2</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>3 + _ = 5</td>
<td>4 + 2</td>
</tr>
<tr>
<td>2 + 5</td>
<td>6 + 2</td>
</tr>
<tr>
<td>7 + _ = 9</td>
<td>8 + 2</td>
</tr>
<tr>
<td>2 + 9</td>
<td>10 + 2</td>
</tr>
</tbody>
</table>

Lesson 19: Relate manipulative representations to a written method.

Date: 7/4/13
1. Solve vertically. Draw chips on the place value chart and bundle when needed.

   a. 23 + 57

   

   b. 65 + 36

   

   c. 83 + 29

   
Lesson 20 Problem Set

2. Jessica’s teacher marked her answer wrong for Problem 3. Jessica can’t figure out what she did wrong. If you were Jessica’s teacher, how would you explain her mistake?

Jessica’s work:

```
+32
4 + 77
-----
19
```

Explanation:
Lesson 20 Exit Ticket

1. Solve vertically. Draw chips on the place value chart and bundle when needed.

   a. 46 + 65

   b. 74 + 57
1. Solve vertically. Draw chips on the place value chart and bundle when needed.

a. 41 + 39

b. 54 + 26

c. 96 + 39
d. \(84 + 79\)

\[
\begin{array}{ccc}
100's & 10's & 1's \\
\hline
\hline
\end{array}
\]

\[
\begin{array}{ccc}
100's & 10's & 1's \\
\hline
\hline
\end{array}
\]

e. \(65 + 97\)

\[
\begin{array}{ccc}
100's & 10's & 1's \\
\hline
\hline
\end{array}
\]

\[
\begin{array}{ccc}
100's & 10's & 1's \\
\hline
\hline
\end{array}
\]

2. For each box, find and circle two numbers that add up to 150.

a. 

\[
\begin{array}{ll}
67 & 63 \\
73 & 83 \\
57 & \\
\end{array}
\]

b. 

\[
\begin{array}{ll}
48 & 92 \\
68 & 62 \\
58 & \\
\end{array}
\]

c. 

\[
\begin{array}{ll}
75 & 55 \\
65 & 45 \\
75 & \\
\end{array}
\]
1. Solve vertically. Draw chips on the place value chart and bundle when needed.

<table>
<thead>
<tr>
<th></th>
<th>100’s</th>
<th>10’s</th>
<th>1’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. $65 + 75$ = _______</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. $84 + 29$ = _______</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. $91 + 19$ = _______</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d. \( 163 + 27 = \) 

<table>
<thead>
<tr>
<th>100’s</th>
<th>10’s</th>
<th>1’s</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Abby solved \( 99 + 99 \) on her place value chart and in vertical form, but she got an incorrect answer. Check Abby’s work and correct it.

Abby's work:

```
  99
+ 99
 188
```

What did Abby do correctly?

_________________________________________________________________
_________________________________________________________________

What did Abby do incorrectly?

_________________________________________________________________
_________________________________________________________________
1. Solve vertically. Draw chips on the place value chart and bundle when needed.

   a. $\underline{58 + 67} = \underline{\phantom{00}}$

<table>
<thead>
<tr>
<th>100's</th>
<th>10's</th>
<th>1's</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   b. $\underline{43 + 89} = \underline{\phantom{00}}$

<table>
<thead>
<tr>
<th>100's</th>
<th>10's</th>
<th>1's</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 21 Homework

Name _________________________________ Date ________________

1. Solve vertically. Draw chips on the place value chart and bundle when needed.

   a. \(45 + 76 = \) _________

      \[
      \begin{array}{ccc}
      & 100's & 10's & 1's \\
      \hline
      \end{array}
      \]

   b. \(62 + 89 = \) _________

      \[
      \begin{array}{ccc}
      & 100's & 10's & 1's \\
      \hline
      \end{array}
      \]

   c. \(97 + 79 = \) _________

      \[
      \begin{array}{ccc}
      & 100's & 10's & 1's \\
      \hline
      \end{array}
      \]
Lesson 21 Homework

1. 127 + 78 = __________

2. The blue team scored 37 fewer points than the white team. The blue team scored 69 points.
   
   a. How many points did the white team score?

   b. How many points did the blue and white team score altogether?
Lesson 22 Problem Set 2•4

Name ________________________________ Date ________________

1. Look to make 10 ones or 10 tens to solve the following problems using place value strategies.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>5 + 5 + 7 = ______</td>
<td>25 + 25 + 17 = ______</td>
</tr>
<tr>
<td>b.</td>
<td>4 + 6 + 5 = ______</td>
<td>24 + 36 + 75 = ______</td>
</tr>
<tr>
<td>c.</td>
<td>2 + 4 + 8 + 6 = ______</td>
<td>32 + 24 + 18 + 46 = ______</td>
</tr>
</tbody>
</table>
2. Josh and Keith have the same problem for homework: $23 + 35 + 47 + 56$. The students solved the problem differently, but got the same answer.

   **Josh's work**
   
   $23 + 35 + 47 + 56$
   
   $70 + 35 + 56$
   
   $100 + 61 = 161$

   **Keith's work**
   
   $23 + 35 + 47 + 56$
   
   $26 + 35 + 50 + 56$
   
   $85 + 106 = 60 + 101 = 161$

   a. Solve $23 + 35 + 47 + 56$ another way.

1. Look to make 10 ones or 10 tens to find the sum in the following problems.
   a. $17 + 33 + 48$
   b. $35 + 56 + 89 + 18$
Lesson 22: Solve additions with up to four addends with totals within 200 with and without two compositions of larger units.

1. Look to make 10 ones or 10 tens to solve the following problems using place value strategies.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>6 + 3 + 7 = _______</td>
<td>36 + 23 + 17 = _______</td>
</tr>
<tr>
<td>b.</td>
<td>8 + 2 + 5 = _______</td>
<td>38 + 22 + 75 = _______</td>
</tr>
<tr>
<td>c.</td>
<td>9 + 4 + 1 + 6 = _____</td>
<td>29 + 34 + 41 + 16 = _____</td>
</tr>
</tbody>
</table>
2. The table shows the top six soccer teams and their total points scored this season.

<table>
<thead>
<tr>
<th>Teams</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>29</td>
</tr>
<tr>
<td>Yellow</td>
<td>38</td>
</tr>
<tr>
<td>Green</td>
<td>41</td>
</tr>
<tr>
<td>Blue</td>
<td>76</td>
</tr>
<tr>
<td>Orange</td>
<td>52</td>
</tr>
<tr>
<td>Black</td>
<td>24</td>
</tr>
</tbody>
</table>

a. How many points did the yellow and orange teams score together?

b. How many points did the yellow, orange, and blue teams score together?

c. How many points did the red, green, and black teams score together?

d. Which two teams scored a total of 70 points?

e. Which two teams scored a total of 100 points?
Lesson 23 Problem Set

Name __________________________ Date ________________

1. Solve using number bonds to subtract from 100. The first one has been done for you.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>106 - 90 = 16</td>
</tr>
<tr>
<td></td>
<td>100 6</td>
</tr>
<tr>
<td></td>
<td>100 - 90 = 10</td>
</tr>
<tr>
<td></td>
<td>10 + 6 = 16</td>
</tr>
<tr>
<td>b.</td>
<td>116 - 90</td>
</tr>
<tr>
<td>c.</td>
<td>114 - 80</td>
</tr>
<tr>
<td>d.</td>
<td>115 - 80</td>
</tr>
<tr>
<td>e.</td>
<td>123 - 70</td>
</tr>
<tr>
<td>f.</td>
<td>127 - 60</td>
</tr>
</tbody>
</table>
### Lesson 23 Problem Set

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>g.</td>
<td>119 - 50</td>
</tr>
<tr>
<td>h.</td>
<td>129 - 60</td>
</tr>
<tr>
<td>i.</td>
<td>156 - 80</td>
</tr>
<tr>
<td>j.</td>
<td>142 - 70</td>
</tr>
</tbody>
</table>

2. **Use a number bond to show how you would take 8 tens from 126.**
Lesson 23 Exit Ticket

1. Solve using number bonds to subtract from 100.
   a. 114 - 50
   b. 176 - 90
   c. 134 - 40
Lesson 23 Homework

Name _________________________________ Date _______________

1. Solve using number bonds to subtract from 100. The first one has been done for you.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>105 - 90 = 15</td>
<td>b. 121 - 90</td>
</tr>
<tr>
<td></td>
<td>100 - 90 = 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 + 5 = 15</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>112 - 80</td>
<td>d. 135 - 70</td>
</tr>
<tr>
<td>e.</td>
<td>136 - 60</td>
<td>f. 129 - 50</td>
</tr>
</tbody>
</table>

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2. Monica incorrectly solved 132 - 70 to get 102. Show her how to solve it correctly.

**Monica's work:**

\[
132 - 70 = \\
\begin{array}{c}
\text{100} \\
\text{32}
\end{array}
\]

\[
100 - 30 = 70 \\
70 + 32 = 102
\]

**Correct way to solve 132 - 70:**

3. Billy sold 50 fewer magazines than Alex. Alex sold 128 magazines. How many magazines did Billy sell?
Name _________________________________ Date __________________

1. Solve using mental math. If you cannot solve mentally, use your place value chart and number disks.

   a. 25 - 5 = _______ 25 - 6 = _______ 125 - 25 = _______ 125 - 26 = _______

   b. 160 - 50 = _______ 160 - 60 = _______ 160 - 70 = _______

2. Solve using your place value chart and number disks. Unbundle the hundred or ten when necessary. Circle what you did to model each problem.

<table>
<thead>
<tr>
<th></th>
<th>a. 124 - 60 = _______</th>
<th>b. 174 - 58 = _______</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I unbundled the hundred.</td>
<td>I unbundled the hundred.</td>
</tr>
<tr>
<td></td>
<td>I unbundled a ten.</td>
<td>I unbundled a ten.</td>
</tr>
<tr>
<td></td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>c. 121 - 48 = _______</th>
<th>d. 125 - 67 = _______</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I unbundled the hundred.</td>
<td>I unbundled the hundred.</td>
</tr>
<tr>
<td></td>
<td>I unbundled a ten.</td>
<td>I unbundled a ten.</td>
</tr>
<tr>
<td></td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>e. 145 - 76 = _______</th>
<th>f. 181 - 72 = _______</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I unbundled the hundred.</td>
<td>I unbundled the hundred.</td>
</tr>
<tr>
<td></td>
<td>I unbundled a ten.</td>
<td>I unbundled a ten.</td>
</tr>
<tr>
<td></td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
</tbody>
</table>
Lesson 24 Problem Set

<table>
<thead>
<tr>
<th>g.</th>
<th>111 - 99 = ______</th>
<th>h.</th>
<th>131 - 42 = ______</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I unbundled the hundred. Yes No</td>
<td></td>
<td>I unbundled the hundred. Yes No</td>
</tr>
<tr>
<td></td>
<td>I unbundled a ten. Yes No</td>
<td></td>
<td>I unbundled a ten. Yes No</td>
</tr>
<tr>
<td>i.</td>
<td>123 - 65 = ______</td>
<td>j.</td>
<td>132 - 56 = ______</td>
</tr>
<tr>
<td></td>
<td>I unbundled the hundred. Yes No</td>
<td></td>
<td>I unbundled the hundred. Yes No</td>
</tr>
<tr>
<td></td>
<td>I unbundled a ten. Yes No</td>
<td></td>
<td>I unbundled a ten. Yes No</td>
</tr>
<tr>
<td>k.</td>
<td>145 - 37 =</td>
<td>l.</td>
<td>115 - 48 = ______</td>
</tr>
<tr>
<td></td>
<td>I unbundled the hundred. Yes No</td>
<td></td>
<td>I unbundled the hundred. Yes No</td>
</tr>
<tr>
<td></td>
<td>I unbundled a ten. Yes No</td>
<td></td>
<td>I unbundled a ten. Yes No</td>
</tr>
</tbody>
</table>

3. There were 167 apples. The students ate 89 apples. How many apples were left?

4. For early finishers: Tim and John have 175 trading cards together. John has 88 cards.
   a. How many cards does Tim have?
   b. Brady has 29 fewer cards than Tim. Have many cards does Brady have?
Name _________________________________ Date ________________

1. Solve using your place value chart and number disks. Change 1 hundred for 10 tens and change 1 ten for 10 ones when necessary. Circle what you need to do to model each problem.

   a. \[ 157 - 74 = \_]  
      I unbundled the hundred.  
      I unbundled a ten. 

   b. \[ 124 - 46 = \_]  
      I unbundled the hundred.  
      I unbundled a ten. 

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Lesson 24 Homework

Name ___________________________ Date ______________

1. Solve using mental math. If you cannot solve mentally, use your place value chart and number disks.

   a. \(38 - 8 = \) _____ \(38 - 9 = \) _____ \(138 - 38 = \) ____ \(138 - 3 = \) _____

   b. \(130 - 20 = \) _____ \(130 - 30 = \) _____ \(130 - 40 = \) _____

2. Solve using your place value chart and number disks. Unbundle the hundred or ten when necessary. Circle what you did to model each problem.

   a. \(115 - 50 = \) _____
      
      I unbundled the hundred.  Yes  No
      I unbundled a ten.  Yes  No

   b. \(125 - 57 = \) _____
      
      I unbundled the hundred.  Yes  No
      I unbundled a ten.  Yes  No

   c. \(88 - 39 = \) _____
      
      I unbundled the hundred.  Yes  No
      I unbundled a ten.  Yes  No

   d. \(186 - 39 = \) _____
      
      I unbundled the hundred.  Yes  No
      I unbundled a ten.  Yes  No

   e. \(162 - 85 = \) _____
      
      I unbundled the hundred.  Yes  No
      I unbundled a ten.  Yes  No

   f. \(172 - 76 = \) _____
      
      I unbundled the hundred.  Yes  No
      I unbundled a ten.  Yes  No
g. 121 - 89 = ______  
I unbundled the hundred.  Yes   No  
I unbundled a ten.  Yes   No  

h. 131 - 98 = ______  
I unbundled the hundred.  Yes   No  
I unbundled a ten.  Yes   No  

i. 140 - 65 = ______  
I unbundled the hundred.  Yes   No  
I unbundled a ten.  Yes   No  

j. 150 - 56 = ______  
I unbundled the hundred.  Yes   No  
I unbundled a ten.  Yes   No  

k. 163 - 78 = ________  
I unbundled the hundred.  Yes   No  
I unbundled a ten.  Yes   No  

l. 136 - 87 = ______  
I unbundled the hundred.  Yes   No  
I unbundled a ten.  Yes   No  

3. 96 crayons in the basket are broken. The basket has 182 crayons. How many crayons are not broken?
<table>
<thead>
<tr>
<th>9 - 2</th>
<th>10 - 2</th>
</tr>
</thead>
<tbody>
<tr>
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<td>18 - 2</td>
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</table>

Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

Date: 7/4/13

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<table>
<thead>
<tr>
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<td>15 - 3</td>
<td>16 - 3</td>
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</tbody>
</table>

Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

Date: 7/4/13
Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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<td>13 - 4</td>
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</table>
Lesson 24 Flashcard Template

Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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Date: 7/4/13
Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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</table>
Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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Date: 7/4/13
Lesson 24 Flashcard Template

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Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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<tr>
<td>13 - 8</td>
<td>14 - 8</td>
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<tr>
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<td>16 - 8</td>
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</table>

Date: 7/4/13
Lesson 24 Flashcard Template

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Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

Date: 7/4/13
Lesson 24 Flashcard Template

<table>
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<th>15 - 9</th>
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<td>18 - 9</td>
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<tr>
<td>19 - 9</td>
<td>20 - 9</td>
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</tbody>
</table>

Lesson 24

Use manipulatives to represent subtraction with decompositions of 1 hundred as 10 tens and 1 ten as 10 ones.

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4.E.36

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.
1. Solve the following problems using the vertical written method, your place value chart, and number disks. Unbundle a ten or hundred when necessary. Show your work for each problem.

   a. 72 - 49
   b. 118 - 30
   c. 145 - 54
   d. 102 - 64

   83 - 49
   118 - 85
   167 - 78
   107 - 78
2. Mrs. Tosh baked 160 cookies for the bake sale. She sold 78 of them. How many cookies did she have left?

3. Tammy had $154. She bought a watch for $86. Does she have enough money left over to buy a $67 bracelet?
Name ________________________________ Date ________________

1. Solve the following problems using the vertical written method, your place value chart, and number disks. Unbundle a ten or hundred when necessary. Show your work for each problem.

a. 97 - 69

b. 121 - 65
Name __________________________________ Date _______________

1. Solve the following problems using the vertical written method, your place value chart, and number disks. Unbundle a ten or hundred when necessary. Show your work for each problem.

a. 65 - 38  
   66 - 49

b. 111 - 60  
   120 - 67

c. 163 - 66  
   184 - 95

d. 102 - 86  
   108 - 39
2. Dominic has $167. He has $88 more than Mario. How much money does Mario have?

3. Which problem will have the same answer as 133 - 77? Show your work.
   a. 155 - 66
   b. 144 - 88
   c. 177 - 33
   d. 139 - 97
Name ____________________________ Date ________________

1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

   
   
   hundreds | tens | ones
   
   a. $181 - 63 = \underline{\hspace{2cm}}$

   
   
   hundreds | tens | ones
   
   b. $134 - 52 = \underline{\hspace{2cm}}$

   
   
   hundreds | tens | ones
   
   c. $175 - 79 = \underline{\hspace{2cm}}$
Lesson 26 Problem Set

2. Tanisha and James drew models on their place value charts to solve this problem: 102 - 47. Tell whose model is incorrect and why.

James

Tanisha

James's model is incorrect because ____________________________

_______________________________.

d. 115 - 26 =


e. 100 - 64 =

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Lesson 26 Exit Ticket

Name ___________________________ Date _____________

1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>a.</td>
<td>153</td>
<td>46</td>
</tr>
<tr>
<td>b.</td>
<td>107</td>
<td>68</td>
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</tbody>
</table>

<p>| | | |</p>
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</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
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</tr>
</tbody>
</table>
Lesson 26 Homework

Name ________________________________  Date ________________

1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

a. 114 - 65 = __________

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

b. 120 - 37 = __________

<table>
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<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

c. 141 - 89 = __________
Lesson 26 Homework

Use math drawings to represent subtraction with up to two decompositions and relate drawings to a written method.

Date: 7/4/13

2. Fill in the missing number to complete the number sentence. Draw a place value chart and chips to model.

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ d. \ 136 - 77 = \ ___ \ ___ \ ___ \]

\[ e. \ 100 - 42 = \ ___ \ ___ \ ___ \]

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>

\[ a. \ 123 - 569 = \ ___ \ ___ \ ___ \]

<table>
<thead>
<tr>
<th>hundreds</th>
<th>tens</th>
<th>ones</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lesson 27 Problem Set

Name ____________________________ Date __________________

1. Make each equation true.

   a. 1 hundred = _____ tens

   b. 1 hundred = 9 tens ______ ones

   c. 2 hundreds = 1 hundred _____ tens

   d. 2 hundreds = 1 hundred 9 tens _____ ones

2. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

   a. 100 - 61 = _________

      hundreds | tens | ones

   b. 100 - 79 = _________

      hundreds | tens | ones
Lesson 27: Subtract from 200 and from numbers with zeros in the tens place.

Date: 7/4/13

4.E.69

- c. 200 - 7 = _________

- d. 200 - 87 = _________

- e. 200 - 126 = _________
1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

   a. 100 - 44 = _________

   | hundreds | tens | ones |
   |_________|_______|_______|

   b. 200 - 76 = _________

   | hundreds | tens | ones |
   |_________|_______|_______|
Lesson 27 Homework

Name ________________________________  Date ______________

1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

   a. $100 - 37 = \underline{_______}$  
      hundreds | tens | ones

   b. $100 - 49 = \underline{_______}$  
      hundreds | tens | ones

   c. $200 - 49 = \underline{_______}$  
      hundreds | tens | ones

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d. \(200 - 57 = \) \[ \text{ hundreds } | \text{ tens } | \text{ ones } \]

e. \(200 - 83 = \) \[ \text{ hundreds } | \text{ tens } | \text{ ones } \]

2. Susan solved \(200 - 91\) and decided to add her answer to 91 to check her work. Explain why this strategy works.

Susan’s work:

\[
\begin{array}{c}
\text{190} \\
- \text{91} \\
\hline
\text{109}
\end{array}
\]

\[
\begin{array}{c}
\text{109} \\
+ \text{91} \\
\hline
\text{200}
\end{array}
\]

Explaination:

\[ \text{______________________________________} \]

\[ \text{______________________________________} \]

\[ \text{______________________________________} \]

\[ \text{______________________________________} \]
Lesson 28 Problem Set

Name __________________________________________ Date ________________

1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

   a. $109 - 56 = \underline{\hspace{2cm}}$

      Hundreds  |  Tens  |  Ones

   b. $103 - 34 = \underline{\hspace{2cm}}$

      Hundreds  |  Tens  |  Ones

   c. $200 - 155 = \underline{\hspace{2cm}}$

      Hundreds  |  Tens  |  Ones

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Lesson 28 Problem Set

2. Solve vertically without a place value chart.

200 - 148 = _________

3. Solve vertically. Draw a place value chart and chips.

Ralph has 137 fewer stamps than his older brother. His older brother has 200 stamps. How many stamps does Ralph have?
Lesson 28 Exit Ticket

Name ___________________________   Date _____________

1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

   a. 108 - 79 = __________

      hundreds  |  tens  |  ones
      ________  |  ______ |  ______

   b. 200 - 126 = __________

      hundreds  |  tens  |  ones
      ________  |  ______ |  ______
1. Solve vertically. Draw chips on the place value chart. Unbundle when needed.

a. \(136 - 94 = \underline{\phantom{00}} \) 
   
   \[
   \begin{array}{ccc}
   & \text{hundreds} & \text{tens} & \text{ones} \\
   \hline
   \end{array}
   \]

b. \(105 - 57 = \underline{\phantom{00}} \) 
   
   \[
   \begin{array}{ccc}
   & \text{hundreds} & \text{tens} & \text{ones} \\
   \hline
   \end{array}
   \]

c. \(200 - 61 = \underline{\phantom{00}} \) 
   
   \[
   \begin{array}{ccc}
   & \text{hundreds} & \text{tens} & \text{ones} \\
   \hline
   \end{array}
   \]
d. 200 - 107 = _________

   hundreds   tens  ones


e. 200 - 143 = _________

   hundreds   tens  ones


2. Herman collected 200 shells on the beach. Of those, he kept 136 shells and left the rest on the beach. How many shells did he leave on the beach?
1. Solve each addition equation using both the totals below and new groups below methods. Draw a place value chart with disks and two different number bonds to represent each.

   a. 27 + 19

   b. 57 + 36
2. Add like units and record the totals below.

a. \[ \begin{array}{c}
87 \\
+ 95 \\
\hline
182
\end{array} \]

\[ (7 + 5) \]
\[ (80 + 90) \]

b. \[ \begin{array}{c}
106 \\
+ 24 \\
\hline
130
\end{array} \]

c. \[ \begin{array}{c}
151 \\
+ 45 \\
\hline
196
\end{array} \]

d. \[ \begin{array}{c}
126 \\
+ 72 \\
\hline
200
\end{array} \]

e. \[ \begin{array}{c}
159 \\
+ 30 \\
\hline
189
\end{array} \]

f. \[ \begin{array}{c}
108 \\
+ 91 \\
\hline
200
\end{array} \]
1. Add like units and record the totals below.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>a.</td>
<td><strong>45</strong></td>
<td>+ <strong>64</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td><strong>109</strong></td>
<td>+ <strong>72</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td><strong>144</strong></td>
<td>+ <strong>58</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td><strong>167</strong></td>
<td>+ <strong>52</strong></td>
</tr>
</tbody>
</table>

Use and explain the totals below written method using words, math drawings, and numbers.
1. Add like units and record the totals below.

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<td>+</td>
<td>27</td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 118</td>
<td>+</td>
<td>73</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>c. 156</td>
<td>+</td>
<td>62</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>d. 137</td>
<td>+</td>
<td>82</td>
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</table>
Lesson 29 Homework

2. Daniel counted 67 apples on one tree and 79 apples on another tree. How many apples were on both trees? Add like units and record totals below to solve.

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Use and explain the totals below written method using words, math drawings, and numbers.

7/4/13

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1. Linda and Keith added 127 + 59 differently. Explain why Linda and Keith’s work are both correct.

Linda’s work:

```
127
+ 59
186
```

Keith’s work:

```
127
+ 59
186
```

2. Jake solved 124 + 69 below. Solve the same problem another way.

```
124
+ 69
193
```
3. Solve each problem two different ways.

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>a. 134 + 48</td>
<td>b. 83 + 69</td>
</tr>
<tr>
<td>c. 46 + 75</td>
<td>d. 63 + 128</td>
</tr>
</tbody>
</table>
1. Kevin solved $166 + 25$ below. Solve the same problem another way.

\[
\begin{array}{c}
166 \\
+ \ 25 \\
\hline
191 \\
\end{array}
\]

2. Explain how Kevin's work and your work are similar.

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

Kari’s work:

\[
\begin{array}{c}
136 \\
+ \ 56 \\
\hline
192
\end{array}
\]

Marty’s work:

\[
\begin{array}{c}
136 \\
+ \ 56 \\
\hline
12 \\
\hline
80 \\
\hline
100 \\
\hline
192
\end{array}
\]

a. Explain what is different about how Kari and Marty solved the problem.

_________________________________________________________

_________________________________________________________

_________________________________________________________
2. Here is one way to solve 145 + 67. For (a), solve 145 + 67 another way.

\[
\begin{array}{c}
145 \\
+ \quad 67 \\
\hline
212
\end{array}
\]

a.

b. Explain how the two ways to solve 145 + 67 are similar.

_________________________________________________________
_________________________________________________________
_________________________________________________________

3. Show another way to solve 142 + 39.

\[
\begin{array}{c}
142 \\
+ \quad 39 \\
\hline
181
\end{array}
\]

Compare totals below to new groups below as written methods.
Lesson 31 Problem Set

Solve the following word problems by drawing a tape diagram. Then use any strategy that you’ve learned to solve.

1. Mr. Roberts graded 57 tests on Friday and 43 tests on Saturday. How many tests did Mr. Roberts grade?

2. There are 54 women and 17 fewer men than women on a boat.
   a. How many men were on the boat?
   b. How many people were on the boat?
3. Mark collected 27 fewer coins than Craig. Mark collected 58 coins.
   a. How many coins did Craig collect?

   b. Mark collected 18 more coins than Shawn. How many coins did Shawn collect?

4. There were 35 apples on the table.
   17 of the apples were rotten and were thrown out.
   9 apples were eaten.
   How many apples are still on the table?
Solve the following word problems by drawing a tape diagram. Then use any strategy that you've learned to solve.

1. Sandra has 46 fewer coins than Martha. Sandra has 57 coins.
   a. How many coins does Martha have?

   b. How many coins do both Sandra and Martha have?

2. There are 32 brown dogs and 19 white dogs at the park. 16 more brown dogs come to the park. How many dogs are at the park?
1. Melissa had 56 pens and 37 more pencils than pens.
   a. How many pencils did Melissa have?
   b. How many pens and pencils did Melissa have?

2. Antonio gave 27 tomatoes to his neighbor and 15 to his brother. He had 72 tomatoes before giving some away. How many tomatoes does Antonio have left?
3. The bakery made 92 muffins. 17 were blueberry, 23 were cranberry, and the rest were chocolate chip. How many chocolate chip muffins did the bakery make?

4. After spending $43 on groceries and $19 on a book, Mrs. Groom had $16 left. How much money did Mrs. Groom have to begin with?
Name ___________________________       Date _______________________

1. Solve. Show mental strategy.

   a. $35 + 25 = _____$

   b. _____ = 27 + 46

   c. _____ - 19 = 73

   d. $89 - 52 = _____$

   e. $61 - _____ = 32$

   f. $75 - _____ = 29$

   g. $32 + 1 + _____ = 43$

   h. $60 - _____ - _____ = 49$

   i. $_____ + 10 + 1 = 73$

2. Solve and show your work with a model.

   a. $116 + 74 = _____$

      Model:

   b. $147 + 28 = _____$

      Model:
3. Label each as true or false. Tell how you know.

a. $23 - 14 = 14 + 23$  
   ________________

b. $45 - 19 = 22 + 4$  
   ________________

c. $93 - 56 = 84 - 37$  
   ________________

d. $8$ ones + $5$ tens = $85$  
   ________________
4. Sarah solved the word problem below.

There are 47 cats in Cuddle’s Pet Shop. There are 29 more dogs than cats. How many dogs are in Cuddle’s Pet Shop?

\[
\begin{align*}
47 + 29 &= 76 \\
47 + 30 - 1 &= 76
\end{align*}
\]

a. Explain why Sarah’s addition strategy worked.

b. There are 18 fewer cats than birds. How many birds are in Cuddle’s Pet Shop? Use another place value strategy to find the answer. Show your work.
1. Solve mentally:

   a. \(72 + 10 = \) _______
   
   b. \(\) _______ = 73 – 10
   
   c. \(\) _______ + 10 = 174
   
   d. \(83 + 100 = \) _______
   
   e. \(\) _______ = 182 – 100
   
   f. \(\) _______ – 100 = 81
   
   g. \(65 + 40 = \) _______
   
   h. \(\) _______ = 166 – 40
   
   i. \(127 + \) _______ = 167
   
   j. \(85 + 42 = \) _______

   k. \(\) _______ = 186 – 41
   
   l. \(189 – 47 = \) _______

2. Solve:

   a. Find the solution and model how you found your answer.

   \(87 + 56 = \)

   Model:

   \(38 + 68 + 71 + 12 = \)

   Model:
b. Solve and explain your answer using place value.

<table>
<thead>
<tr>
<th>Expression</th>
<th>Solution</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>91 − 24 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>154 + 27 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>105 − 42 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>86 + 45 =</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
c. Susan and James solved $125 + 32$ in different ways. Explain why both ways are correct.

<table>
<thead>
<tr>
<th>Susan’s Way:</th>
<th>James’ Way:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$125 + 32$</td>
<td>$125 + 30 + 2 = 157$</td>
</tr>
<tr>
<td>$125 + 30$</td>
<td>$157$</td>
</tr>
<tr>
<td>$155 + 1$</td>
<td>$157$</td>
</tr>
</tbody>
</table>

**Explanation:**

3. Find the missing numbers to make each statement true. Show your mental math strategy.

a. $98 \rightarrow \underline{+10} \rightarrow 109$

b. $6$ tens + $4$ ones = $70 \rightarrow \underline{64} = 70 \rightarrow \underline{64}$
c. \[25 + 75 = \underline{} + 30\]

d. \[39 + \underline{} = 82\]

e. \[100 - \underline{} = 45 + 15 + 32\]

4. Sally went shopping. She spent $86 on groceries and $39 on clothing.
   a. How much more did Sally spend on groceries than on clothing? Show your work.

   b. After Sally’s shopping trip she had $12 left. How much money did she have to begin with? Show your work.
c. If Sally hadn’t purchased the clothing would she have been able to afford a $55 necklace? Explain your answer.

d. How much money would Sally need to buy the groceries, clothing, and the necklace? Show your work with a model.
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