GRADE 1
STUDENT WORKBOOK
New York State Common Core
Mathematics Curriculum

GRADE 1 • MODULE 1
Sums and Differences to 10

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Circle 5 and make a number bond.

1. 

2. 

3. 

4. 

5. 

Put nail polish on the number of fingernails shown from left to right. Then fill in the parts. Make the number of fingernails on one hand a part.

5.
Lesson 1

Analyze and describe embedded numbers (to 10) using 5-groups and number bonds.

6. Make a number bond that shows 5 as one part.

7. Make a number bond that shows 5 as one part.

8. Make a number bond that shows 5 as one part.

9. Make a number bond that shows 5 as one part.

10. Make a number bond that shows 5 as one part.

11. Make a number bond that shows 5 as one part.

12. Make a number bond that shows 5 as one part.

Date: 5/9/13

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1.A.11
Make a number bond for the pictures that shows 5 as one part.

1. [Number bond diagram with footballs]

2. [Number bond diagram with cleats]
Name ____________________________ Date ________________

Circle 5 and make a number bond.

1. [Illustration of 5 cats]

2. [Illustration of bones]

3. [Illustration of food]

4. [Illustration of paws]

Make a number bond that shows 5 as one part.

5. [Illustration of dots]

6. [Illustration of dots]

7. [Illustration of dots]

8. [Illustration of dots]
Lesson 1 Homework

Make a number bond for the dominoes.

9. 

10. 

11. 

12. 

Circle 5 and count. Then make a number bond.

13. 

14. 

15. 

16.
Lesson 1: Analyze and describe embedded numbers (to 10) using 5-groups and number bonds.

Date: 5/9/13
Circle 2 parts you see. Make a number bond to match.

1.        2.        

3.        4.        

5.        6.        

Name ____________________________ Date ____________
9. How many pieces of fruit do you see? Write at least 2 different number bonds to show different ways to break apart the total.
Circle 2 parts you see. Make a number bond to match.

1. 

2. 

3. 

4.
Circle 2 parts you see. Make a number bond to match.

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8.
How many animals do you see? Write at least 2 different number bonds to show different ways to break apart the total.

9.

10.
Lesson 2:

Reason about embedded numbers in varied configurations using number bonds.

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Date: 5/9/13
Lesson 2: Reason about embedded numbers in varied configurations using number bonds.

Date: 5/9/13
Lesson 2: Reason about embedded numbers in varied configurations using number bonds.

Date: 5/9/13
Lesson 3: See and describe numbers of objects using 1 more within 5-group configurations.

Date: 5/9/13

Draw one more in the 5-group. In the box, write the numbers to describe the new picture.

1. ☺☺☺☺☺ ☺☺
   1 more than 7 is____.
   7 + 1 = _____

2. ❤❤❤❤❤ ❤❤❤❤❤
   1 more than 9 is____.
   9 + 1 = _____

3. △△△△△ △
   1 more than 6 is____.
   6 + 1 = _____

4. ○○○○○
   1 more than 5 is____.
   5 + 1 = _____
Lesson 3: See and describe numbers of objects using 1 more within 5-group configurations.

Date: 5/9/13

1. A.

5. __________ is 1 more than 8.

8 + 1 = ______

6. ______ is 1 more than 7

______ = 7 + 1

7. Q Q Q Q Q Q

Q

_____ is 1 more than 6

_____ = 6 + 1

8. __________ is 1 more than 5.

______ = 5 + 1

9. Imagine adding 1 more backpack to the picture. Then write the numbers to match how many backpacks there will be.

1 more than 7 is ____.

_____ + 1 = ______
Lesson 3 Exit Ticket

How many objects do you see? Draw one more. How many objects are there now?

1._____ is 1 more than 9.  
9 + 1 = _____

2. 1 more than 6 is ____.  
_____ + 1 = _____
How many objects do you see? Draw one more. How many objects are there now?

1. 
   
   1 more than 9 is ____.
   
   $9 + 1 = _____$

2. 
   
   ____ is 1 more than 7.
   
   ____ = $7 + 1$

3. 
   
   ____ is 1 more than 5.
   
   ____ = $5 + 1$

4. 
   
   1 more than 8 is______.
   
   ____ + 1 = ______
5. Imagine adding 1 more pencil to the picture. Then write the numbers to match how many pencils there will be.

\[
\begin{array}{ccc}
\rule{0pt}{2mm}
| & | & | & | & | & | & | & |
\end{array}
\]

1 more than 5 is _____.
\[5 + 1 = _____\]

6. Imagine adding 1 more flower to the picture. Then write the numbers to match how many flowers there will be.

\[
\begin{array}{ccc}
\rule{0pt}{2mm} & | & | & | & | & | & | & | & | & \rule{0pt}{2mm}
\end{array}
\]

____ is 1 more than 8.
\[____ + 1 = _____\]
Lesson 3: See and describe numbers of objects using 1 more within 5-group configurations.

Date: 5/9/13

1.A.41
Lesson 3: See and describe numbers of objects using 1 more within 5-group configurations.

Date: 5/9/13
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<table>
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<tbody>
<tr>
<td>2 is 1 more than 1.</td>
<td>3 is 1 more than 2.</td>
<td>4 is 1 more than 3.</td>
</tr>
<tr>
<td>1 more than 4 is 5.</td>
<td>1 more than 5 is 6.</td>
<td>1 more than 6 is 7.</td>
</tr>
<tr>
<td>8 is 1 more than 7.</td>
<td>1 more than 8 is 9.</td>
<td>1 more than 9 is 10.</td>
</tr>
</tbody>
</table>
Lesson 4 Problem Set

Ways to Make 6!

Use the apple picture to help you write all of the different ways to make 6.

Name ____________________________ Date _____________

1. Ways to Make 6!

Use the apple picture to help you write all of the different ways to make 6.

1. 

2. 

3. 

4. 

5. 

6. 

7. 

8. 

9. 

10. 

Lesson 4: Represent *put together* situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total.
Lesson 4 Exit Ticket

Name ___________________________ Date ________________

Show different ways to make 6. In each set, shade some circles and leave the others blank.

Write a number bond to match this picture.

Write a number sentence to match this picture.

+ = 24
Today we learned the different combinations that make 6! For homework, cut out the flashcards below and write the number sentences on the back that you learned today. Keep these flashcards in the place where you do your homework to practice ways to make 6 until you know them really well! As we continue to learn different ways to make 7, 8, 9, and 10 in the upcoming week, continue to make new flashcards.

*Note to families: Be sure students make each of the combinations that make 6. The number bond cards can look something like this:

Front of card

```
  6

  2

  4
```

Back of card

```
2 + 4 = 6
```
Lesson 4: Represent put together situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total.

Date: 5/9/13
Lesson 4:
Represent put together situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total.

Date: 5/9/13
Lesson 5: Represent put together situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total.

Date: 5/9/13
Ways to Make 7! Use the classroom picture to help you write the expressions and number bonds to show all of the different ways to make 7.

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<td>5</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
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</tbody>
</table>
Color in two dice that make 7 together. Then fill in the number bond and number sentences to match the dice you colored.

\[
\begin{align*}
\text{Color in:} & \quad \begin{array}{c}
\text{\circle{1}} \\
\text{\circle{2}} \\
\text{\circle{3}}
\end{array} \\
\text{\square{1}} & \quad \begin{array}{c}
\square{1} \\
\square{2}
\end{array}
\end{align*}
\]

\[
\begin{align*}
\square{1} & = 7 \\
\square{1} & = 7
\end{align*}
\]
Lesson 5: Represent put together situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total.

1. Match the dice to show different ways to make 7. Then draw a number bond for each pair of dice.

![Dice images](image)

![Number bonds](image)

2. Make 2 number sentences. Use the number bonds above for help.

   ![Number sentences](image)

3. Fill in the missing number from the number bond. Then write more addition sentences for the number bond you made.

   ![Number sentences](image)
4. Color the dominoes that make 7.

5. Complete the number bonds for the dominoes you colored.
Lesson 5: Represent put together situations with number bonds. Count on from one embedded number or part to totals of 6 and 7 and generate all addition expressions for each total.

Date: 5/9/13
5-group cards

5 groups

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</table>
Lesson 6: Represent put together with number bonds.

Date: 5/9/13
Ways to Make 8 Game Recording Sheet

Use your 5-group cards to help you write the expressions and number bonds to show all of the different ways to make 8.
Lesson 6: Represent put together with number bonds.

Date: 5/9/13

1. Circle 6. How many more does 6 need to make 8?

2. Circle 5. How many more does 5 need to make 8?

3. Circle 4. How many more does 4 need to make 8?
Fill in the missing part of the number bond and count on to find the total. Then write 2 addition sentences for each number bond.

1.

\[
\begin{array}{c}
5 \\
\hline \\
\hline \\
\hline \\
\hline
\end{array}
\]

\[
\begin{array}{c}
+ \\
\hline \\
+ \\
\hline \\
\hline
\end{array}
\]

\[
\begin{array}{c}
+ \\
\hline \\
\hline
\end{array}
\]

\[
\begin{array}{c}
\square + \square = \square \\
\square + \square = \square \\
\square + \square = \square \\
\square + \square = \square
\end{array}
\]

2.

\[
\begin{array}{c}
6 \\
\hline \\
\hline \\
\hline \\
\hline
\end{array}
\]

\[
\begin{array}{c}
\square + \square = \square \\
\square + \square = \square \\
\square + \square = \square \\
\square + \square = \square
\end{array}
\]

\[
\begin{array}{c}
\square + \square = \square \\
\square + \square = \square
\end{array}
\]
1. Match the dots to show different ways to make 8. Then draw a number bond for each pair.

![Number Bonds and Dots](image)

2. Show 2 ways to make 8. Use the number bonds above for help.

![Number Bonds](image)

3. Fill in the missing number of the number bond. Write 2 addition sentences for the number bond you made. Notice where the equal sign is to make your sentence true.

![Number Bond](image)
Name ____________________________ Date ______________

Circle the part. Count on to show 9 with the picture and number bond. Write the expressions.

1. Circle 7. How many more does 7 need to make 9?

[Diagram: Circle 7 with 7 and 9 showing number bond]

2. Circle 4. How many more does 4 need to make 9?

[Diagram: Circle 4 with 4 and 9 showing number bond]

3. Circle 2. How many more does 2 need to make 9?

[Diagram: Circle 2 with 2 and 9 showing number bond]
4. Draw a line to show partners of 9.

5. Write a number bond for each partner of 9. Use the partners above for help.

Write number sentences to match this number bond!
Name ____________________________ Date ________________

1. Circle the pairs of numbers that make 9.

2. Complete the number bonds and show 2 different ways to make 9.

   4 + □ + □ = 9  

   □ + □ + □ = 9

Lesson 7 Exit ticket

NYS COMMON CORE MATHEMATICS CURRICULUM

1.B.51

1. Represent put together situations with number bonds. Count on from one embedded number or part to totals of 8 and 9 and generate all expressions for each total.

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Date: 5/9/13
Ways to Make 9!

Use the bookshelf picture to help you write the expressions and number bonds to show all of the different ways to make 9.
Lesson 7: Represent put together situations with number bonds. Count on from one embedded number or part to totals of 8 and 9 and generate all expressions for each total.

Date: 5/9/13
Lesson 7: Represent put together situations with number bonds. Count on from one embedded number or part to totals of 8 and 9 and generate all expressions for each total.

Date: 5/9/13
1. Use your bracelet to show different partners of 10. Then draw the beads.

Write an expression to match.
2. Match the partners of 10. Then write a number bond for each partner.

3. Color the number bond that has 2 parts that are the same. Write addition sentences to match that number bond.

\[
\begin{align*}
10 & \quad \quad \quad 5 \\
9 & \quad \quad \quad 4 \\
8 & \quad \quad \quad 3 \\
7 & \quad \quad \quad 2 \\
6 & \quad \quad \quad 1 \\
5 & \quad \quad \quad 0 \\
\end{align*}
\]
1. Color the partners that make 10.
1. Rex found 10 bones on his walk. He can’t decide which part he wants to bring to his doghouse and which part he should bury. Help show Rex his choices by filling in the missing parts to the number bonds.

```
10  10  10  10  10
5   6   7   8   9
```

2. He decided to bury 3 and bring 7 back home. Write all the adding sentences that match this number bond.

```
bones
10

3  7
bury   home
```

```
= + 
= + 
= + 
```
Lesson 8:
Represent all the number pairs of 10 as number bond diagrams from a given scenario and generate all expressions equal to 10.
Date: 5/9/13
1. __________ balls are here.  ____ more roll over.  Now, there are ____ balls.

Make a number bond to match the story.

2. __________ frogs are here.  ____ more hops over.  Now, there are ____ frogs.

Make a number bond to match the story.
3. Solve add to with result unknown and put together with result unknown math stories by drawing, writing equations, and making statements of the solution.

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There are _____ dark flags. There are ___ white flags.

Altogether, there are ____ flags.

Make a number bond to match the story.

4. Solve add to with result unknown and put together with result unknown math stories by drawing, writing equations, and making statements of the solution.

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There are _____ white flowers. There are ___ dark flowers.

Altogether, there are ____ flowers.

Make a number bond to match the story.
Name ____________________________ Date ______________

Draw a picture and write a number sentence to match the story.

1. Ben has 3 red balls and gets 5 green balls. How many balls does he have now?

\[ \square + \square = \square \]

Ben has _______ balls.
Lesson 9: Solve add to with result unknown and put together with result unknown math stories by drawing, writing equations, and making statements of the solution.

Date: 5/9/13

1. Use the picture to tell a math story.

Write a number sentence to tell the story.

There are _______ sharks.

Write a number bond to match your story.

2. Use the picture to tell a math story.

Write a number sentence to tell the story.

There are _______ students.

Write a number bond to match your story.
3. Jim has 4 big dogs and 3 small dogs. How many dogs does Jim have?

\[ \square + \square = \square \]

Jim has _______ dogs.

4. Liv plays at the park. She plays with 3 girls and 6 boys. How many kids does she play with at the park?

\[ \square = \square + \square \]

Liv plays with _______ kids.
Lesson 9: Solve *add to with result unknown* and *put together with result unknown* math stories by drawing, writing equations, and making statements of the solution.

Date: 5/9/13
1. Use the picture to write the number sentence and the number bond.

______ little turtles + ______ big turtles = ______ turtles

2. ______ dogs that are awake + ______ sleeping dogs = ______ dogs

3. ______ pigs + ______ pigs in mud = ______ pigs
4. Draw a line from the picture to the matching 5-group cards.

- Draw a line from the group of people to the 5-group card.
- Draw a line from the group of fish to the 2-group card.
- Draw a line from the group of fruits to the 5-group card.
- Draw a line from the group of athletes to the 4-group card.
Draw to show the story. There are 3 large balls and 4 small balls.

How many balls are there? There are ______ balls.

Circle the set of numeral tiles that match your picture.
Name ____________________________________________

1. Use your 5-group cards to solve.

Draw the other 5-group card to show what you did.

$\Box + \Box = \Box$

2. Use your 5-group cards to solve.

Draw the other 5-group card to show what you did.

$\Box = \Box + \Box$

Date __________________

5/9/13
3. There are 4 tall boys and 5 short boys. Draw to show how many boys there are in all.

There are ______ boys in all.

Write a number bond to match the story.

Write a number sentence to show what you did.

4. There are 3 girls and 5 boys. Draw to show how many children there are altogether.

There are ______ children altogether.

Write a number bond to match the story.

Write a number sentence to show what you did.
1. Jill was given a total of 5 flowers for her birthday. Draw more flowers in the vase to show Jill’s birthday flowers.

   How many flowers did you have to draw? ____ flowers

   Write a number sentence and a number bond to match the story.

   \[ \square = \square + \square \]

2. Kate and Nana were baking cookies. They made 2 heart cookies and then made some square cookies. They made 8 cookies altogether. How many square cookies did they make? Draw and count on to show the story.

   Write a number sentence and a number bond to match the story.

   \[ 2 + \square = 8 \]

   Show the parts. Write a number bond to match the story.

   \[ 2 + 1 = 3 \]
Lesson 11: Solve add to with change unknown math stories as a context for counting on by drawing, writing equations, and making statements of the solution.

3. Bill has 2 trucks. His friend, James came over with some more. Together they had 5 trucks. How many trucks did James bring over?

James brought over ______ trucks.

Write a number sentence to explain the story.

\[ 2 + \_ = 5 \]

4. Jane caught 7 fish before she stopped to eat lunch. After lunch she caught some more. At the end of the day she had 9 fish. How many fish did she catch after lunch?

Jane caught ______ fish after lunch.

Write a number sentence to explain the story.

_____

Name ___________

_____

Date ________
1. Draw more bears to show that Jen has 8 bears total.

I added _____ more bears.

Write a number sentence to show how many bears you drew.
1. Use the 5-group cards to count on to find the missing number in the number sentences.

\[
\begin{align*}
2 + \underline{} &= 7 \\
8 &= 5 + \underline{} \\
9 &= 7 + \underline{} \\
9 &= \underline{} + 9
\end{align*}
\]

Match the number sentence to the math story. Draw a picture or use your 5-group
Lesson 11 Homework

Lesson 11: Solve add to with change unknown math stories as a context for counting on by drawing, writing equations, and making statements of the solution.

Scott has 3 cookies. His mom gives him some more. Now he has 8 cookies. How many cookies did his mom give him?

Now Scott has _______ cookies.

6 + ? = 9

Kim sees 6 birds in the tree.
Some more birds fly in.
Kim sees 9 birds in the tree. How many birds fly to the tree?

______ birds fly to the tree.

3 + ? = 8

4 + ? = 8
Lesson 11: Solve add to with change unknown math stories as a context for counting on by drawing, writing equations, and making statements of the solution.

Date: 5/9/13

Number Sentence Cards

\[
\begin{array}{ccc}
3 & + & 2 \\
7 & + & 1 \\
6 & + & 1 \\
4 & + & 2 \\
6 & = & 5 + 1 \\
10 & = & 7 + 3 \\
8 & = & 6 + 2 \\
7 & = & 5 + 2
\end{array}
\]
Lesson 12

Objective: Solve *add to with change unknown* math stories using 5-group cards.

Suggested Lesson Structure

- Fluency Practice (15 minutes)
- Application Problem (5 minutes)
- Concept Development (30 minutes)
- Student Debrief (10 minutes)

Total Time (60 minutes)

**Fluency Practice (15 minutes)**

- Slam: Partners to 6 1.OA.6 (10 minutes)
- Number Bond Dash: 6 (Day 2) 1.OA.6 (5 minutes)

**Slam: Partners to 6 (10 minutes)**

Materials: (T/S) 5-group cards

Note: This activity addresses the core fluency objective for Grade 1 of adding and subtracting within 10. In this engaging context, be sure to help students focus on the mathematics of this activity.

Tell students to order cards 0–6 on their desks, beginning with 0. Flash a 5-group card and instruct students to *slam* the card with the partner to 6 (students carefully slap the card on the table). Tell students to say the partners they found when you snap, beginning with the card they just slammed (5 and 1 make 6). Then tell them to say it again, beginning with the card you flashed (1 and 5 make 6). Continue playing until students have found all possible partners to 6. Then give them time to play the game with partners.

**NOTES ON MULTIPLE MEANS FOR ACTION AND EXPRESSION:**

When playing games with your students, provide a variety of ways to respond. Oral fluency games should be adjusted for students who are deaf or students with hearing impairments. This can be done in many ways including showing the answer with fingers, using student boards to write answers, or using a visual signal or vibration.
Name ___________________________________________ Date ________________

Use your 5-group cards

Fill in the missing numbers.

1.  
   
   3 + ____ = 5

2.  
   
   5 + ____ = 9

3.  
   
   4 + ____ = 10

Solve add to with change unknown math stories using 5-group cards.
Lesson 12

Problem Set

4. Kate and Bob had 6 balls at the park. Kate had 2 of the balls.

How many balls did Bob have?

_______ balls = _______ balls + _______ balls

Bob had _______ balls at the park.

5. I had 3 apples. My mom gave me some more. Then I had 10 apples.

How many apples did my mom give me?

_______ apples + _______ apples = _______ apples

Mom gave me _______ apples.
Lesson 12 Exit Ticket

Name ____________________________  Date ______________

Draw a picture and count on to solve the math story.

Bob caught 5 fish. John caught some more fish. They had 7 fish in all. How many fish did John catch?

Write a number sentence to match your picture.

☐ = ☐ + ☐

John caught ________ fish.
Lesson 12 Homework

Use your 5-group cards to count on to find the missing number in the number sentences.

1. 5 + ? = 7
   The mystery number is ______

2. 2 + ? = 8
   The mystery number is ______

3. 6 + ? = 9
   The mystery number is ______
Use your 5-group cards to count on and solve the math stories. Use the boxes to show your 5-group cards.

4. Jack read 4 books on Monday. He reads some more on Tuesday. He reads 7 books total. How many books does Jack read on Tuesday?

5. Kate has 1 sister and some brothers. She has 7 brothers and sisters in all. How many brothers does Kate have?

6. There are 6 dogs in the park and some cats. There are 9 dogs and cats in the park altogether. How many cats are in the park?
Lesson 13: Tell put together with result unknown, add to with result unknown, and add to with change unknown stories from equations.

With a partner, create a story for each of the number sentences below. Draw a picture to show. Write the number bond to match the story.

1. 6 + 2 = □

2. 5 + 5 = □
Lesson 13

Problem Set

Lesson 13: Tell put together with result unknown, add to with result unknown, and add to with change unknown stories from equations.

Date: 5/9/13

1. [Equation]

2. [Equation]

3. $5 + \square = 7$

4. $6 + \square = 10$

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Name ________________________________  Date ________________

Tell a math story for each number sentence by drawing a picture.

1.  $5 + 1 = 6$

2.  $3 + ? = 8$
Use the number sentences to draw a picture, and fill in the number bond to tell a math story.

1. $5 + 2 = 7$

2. $3 + 6 = 9$

3. $7 + ? = 9$
Lesson 14: Count on up to 3 more using numeral and 5-group tiles and fingers to track the change.

Date: 5/9/13

Name ________________________________ Date ________________

1. Count on to add.

\[ \square + \square = \square \]
There are ____ flowers altogether.

2. There are ____ oranges in all.

\[ \square = \square + \square \]

3. There is a total of ____ crayons.

\[ \square = \square + \square \]
Lesson 14 Problem Set

4. Use your 5-group cards to count on to add. Try to use as few dot cards as you can.

\[
\begin{align*}
6 + 1 &= \\
6 + 3 &= \\
7 + 2 &= \\
\square + \square &= 5 + 3
\end{align*}
\]

5. Use your 5-group cards, your fingers or your known facts to count on to add.

\[
\begin{align*}
8 + 2 &= \\
\square + \square &= 4 + 1 \\
4 + 3 &= \\
\square + \square &= 6 + 3
\end{align*}
\]
Lesson 14 Exit Ticket

Name ___________________________ Date _____________

[Image of a drawing with 6 hats]

6 + 2 = 

I counted ______ more hats.

Count on to solve the number sentences.

7 + 3 = 

8 + 2 = 

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Count on to add.

5 + 1 = 

Write what you say when you count on.

5, 6

5 + 2 = 

7 + 2 = 

= 6 + 3

= 7 +
Lesson 14:
Count on up to 3 more using numeral and 5-group tiles and fingers to track the change.
5/9/13
Lesson 15: Count on up to 3 more using numeral and 5-group cards and fingers to track the change.

Date: 5/9/13

1. Count on to add.

There are ____ crayons altogether.

There are a total of ____ balloons.

In all, there are ____ pencils.
2. What shortcut or efficient strategy can you find to add?

<table>
<thead>
<tr>
<th>4 + 1 =</th>
<th>2 + 5 =</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 + 3 =</td>
<td>7 + 2 =</td>
</tr>
<tr>
<td>7 + 1 =</td>
<td>7 + 3 =</td>
</tr>
<tr>
<td></td>
<td>4 + 2 =</td>
</tr>
<tr>
<td></td>
<td>5 + 3 =</td>
</tr>
<tr>
<td></td>
<td>3 + 6 =</td>
</tr>
<tr>
<td></td>
<td>3 + 7 =</td>
</tr>
<tr>
<td></td>
<td>2 + 8 =</td>
</tr>
</tbody>
</table>
Name ____________________________ Date _____________

Use the picture to add.

Show the shortcut you used to add.

There are ________ eggs total.
Lesson 15: Count on up to 3 more using numeral and 5-group cards and fingers to track the change.

Date: 5/9/13

Use your 5-group cards or your fingers to count on to solve.

Show the shortcut you used to add.

5 + 3 = □
6 + 2 = □
7 + 3 = □

Show the strategy you used to add.

□ = 8 + 2
□ = 6 + 3
□ = 7 + 2
Lesson 16: Count on to find the unknown part in missing addend equations such as $6 + \_ = 9$. Answer, "How many more to make 6, 7, 8, 9, and 10?"

1. Draw more apples to solve $4 + \_ = 6$.

\[
\begin{array}{c}
4 \quad + \quad \_ = 6 \\
\end{array}
\]

I added ____ apples to the tree.

2. How many more to make 7?

\[
\begin{array}{c}
5 \quad + \quad \_ = 7 \\
\end{array}
\]

3. How many more to make 8?

\[
\begin{array}{c}
\_ \quad + \quad 6 = 8 \\
\end{array}
\]

4. How many more to make 9?

\[
\begin{array}{c}
7 \quad + \quad \_ = 9 \\
\end{array}
\]
Lesson 16: Count on to find the unknown part in missing addend equations such as $6 + \_ = 9$. Answer, “How many more to make 6, 7, 8, 9, and 10?”

Date: 5/9/13
Count on to find the unknown part in missing addend equations such as 6 + __ = 9. Answer, "How many more to make 6, 7, 8, 9, and 10?"

![Car drawings](image)

$$4 + \square = 6$$

2. Use your 5-group cards to solve $6 + ? = 8$

$$6 + \square = 8$$

3. Use counting on to solve $7 + ? = 10$

$$7 + \square = 10$$
Write an expression that matches the groups on each plate. If the plates have the same amount of fruit, write the equal sign between the expressions.

1. 

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{apple} & & \text{orange}
\end{array}
\]

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{orange} & & \text{orange}
\end{array}
\]

2. 

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{oranges} & & \text{oranges}
\end{array}
\]

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{oranges} & & \text{oranges}
\end{array}
\]

3. 

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{oranges} & & \text{oranges}
\end{array}
\]

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{oranges} & & \text{oranges}
\end{array}
\]

4. 

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{bananas} & & \text{oranges}
\end{array}
\]

\[
\begin{array}{ccc}
\text{plate} & + & \text{plate} \\
\hline
\text{bananas} & & \text{oranges}
\end{array}
\]
5. Write an expression to match each domino.

\[
\begin{align*}
\text{Domino 1} & : 4 + 2 = 6 \\
\text{Domino 2} & : 3 + 3 = 6 \\
\text{Domino 3} & : 5 + 1 = 6
\end{align*}
\]

Find two sets of expressions that are equal. Connect them below with = to make true number sentences.

6. \[
\begin{align*}
\text{Domino 4} & : 1 + 5 = 6 \\
\text{Domino 5} & : 2 + 4 = 6 \\
\text{Domino 6} & : 3 + 3 = 6
\end{align*}
\]

Find two sets of expressions that are equal. Connect them below with = to make true number sentences.
Use math drawings to make the pictures equal. Connect them below with = to make true number sentences.

Shade the equal dominoes. Write a true number sentence.
Match the equal dominoes then write true number sentences.

1. 

2. 

Find the expressions that are equal. Use the equal expressions to write true number sentences.

2. 

3. 

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1. Add. Color the balloons that match the number in the boy’s mind. Find expressions that are equal. Connect them below with = to make true number sentences.
Lesson 18 Worksheet

2. Are these number sentences true? if it is true. if it is false.

If it’s false, re-write the number sentence to make it true.

(a) $3 + 1 = 2 + 2$  
(b) $9 + 1 = 1 + 2$

(c) $2 + 3 = 1 + 4$  
(d) $5 + 1 = 4 + 2$

(e) $4 + 3 = 3 + 5$  
(f) $0 + 10 = 2 + 8$

(g) $6 + 3 = 4 + 5$  
(h) $3 + 7 = 2 + 6$

3. Write a number in the expression and solve.

1 + ___ = 3 + 2  
___ + 5 = 6 + ___

___ + 4 = 2 + 5  
7 + ___ = 8 + ___
Lesson 18 Exit Ticket

Find two ways to fix each number sentence to make it true.

1. $7 + 3 = 6 + 2$
   - $7 + 3 = 6 + 4$

2. $8 + 1 = 3 + 5$
   - __________
   - __________
The pictures below are not equal. Make the pictures equal and write a true number sentence.

Circle the true number sentences and rewrite the false sentences to make them true.

- $4 = 4$
- $5 + 1 = 6 + 1$
- $3 + 2 = 5 + 0$
- $6 + 2 = 4 + 4$
- $3 + 3 = 6 + 2$
- $9 + 0 = 7 + 2$
- $4 + 3 = 2 + 4$
- $8 = 8 + 0$
- $6 + 3 = 5 + 4$
Lesson 18: Understand the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences.

Date: 5/9/13

Find the missing part to make the number sentences true.

\[ 8 + 0 = \underline{\quad} + 4 \quad \quad \quad 7 + 2 = 9 + \underline{\quad} \quad \quad \quad 5 + 2 = 4 + \underline{\quad} \]

\[ 5 + \underline{\quad} = 6 + 0 \quad \quad \quad 6 + \underline{\quad} = 4 + 3 \quad \quad \quad 5 + 4 = \underline{\quad} + 3 \]
Lesson 18:
Understand the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences.

Date: 5/9/13

<table>
<thead>
<tr>
<th>True and False Number Sentence Cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 + 1 = 2 + 2</td>
</tr>
<tr>
<td>3 + 2 = 4 + 1</td>
</tr>
<tr>
<td>6 + 2 = 3 + 3</td>
</tr>
<tr>
<td>1 + 7 = 4 + 4</td>
</tr>
<tr>
<td>2 + 5 = 4 + 3</td>
</tr>
<tr>
<td>5 + 1 = 4 + 2</td>
</tr>
<tr>
<td>2 + 5 = 8 + 2</td>
</tr>
<tr>
<td>9 + 1 = 4 + 6</td>
</tr>
<tr>
<td>3 + 4 = 6 + 3</td>
</tr>
<tr>
<td>5 + 4 = 3 + 7</td>
</tr>
<tr>
<td>5 + 5 = 6 + 3</td>
</tr>
<tr>
<td>8 + 2 = 3 + 7</td>
</tr>
</tbody>
</table>
Name ____________________________  Date _________________

1. Write the number bond to match the picture. Then complete the number sentences.

- For the first bond: 3 hearts and 2 circles, write 3 + 2 = 5 and 2 + 3 = 5.
- For the second bond: 4 hearts and 3 circles, write 4 + 3 = 7 and 3 + 4 = 7.
- For the third bond: 2 hearts and 8 circles, write 2 + 8 = 10 and 8 + 2 = 10.
Lesson 19 Problem Set

Write the expression under each plate. Add the equal sign to show they are the same amount.

2. [Diagram of plates with sandwiches and hot dogs]

   +

3. [Diagram of plates with apples and oranges]

   +

4. [Diagram of plates with oranges and a banana]

    +

   1 + 6

5. Draw and write to show 2 expressions that use the same numbers and have the same total.

   +

   +
Name ________________________________ Date ____________

Draw a picture and write the number sentences to show the parts in a different order.

____ + ____ = ____  
____ = ____ + ____  

____ + ____ = ____  
____ = ____ + ____  

____ + ____ = ____  
____ = ____ + ____  

Lesson 19: Represent the same story scenario with addends repositioned (the commutative property).
Use the picture to write a number bond and then write the matching number sentences.

____ + ____ = ____  
____ + ____ = ____

Write the number sentences to match the number bonds.

____ + ____ = ____  
____ + ____ = ____

____ = ____ + ____  
____ = ____ + ____
Lesson 19 Homework

Lesson 19: Represent the same story scenario with addends repositioned (the commutative property).

Date: 5/9/13

1. 
\[ \begin{array}{ccc}
8 & + & 2 \\
\hline 
\end{array} \]

2. 
\[ \begin{array}{ccc}
7 & + & 5 \\
\hline 
\end{array} \]

3. 
\[ \begin{array}{ccc}
10 & = & 3 + 7 \\
\hline 
\end{array} \]

4. 
\[ \begin{array}{ccc}
9 & + & 3 \\
\hline 
\end{array} \]
Circle the larger amount and count on. Write the number sentence starting with the larger number.
1.

\[ \square + \square = \square \]

Color the larger part in the number bond. Write the number sentence starting with the larger number.
2.

\[ \square + \square = \square \]

3.

\[ \square = \square + \square \]

4.

\[ \square = \square + \square \]
Shade in the larger part of the bond. Count on from that part to find the total. Rewrite the number sentence to start with the larger number.

5. Shade in the larger part of the bond. Count on from that part to find the total. Rewrite the number sentence to start with the larger number.

   2 + □ = □
   □ + □ = □

6. Shade in the larger part of the bond. Count on from that part to find the total. Rewrite the number sentence to start with the larger number.

   3 + □ = □
   □ + □ = □

Circle the larger number and count on to solve.

7. \(1 + 5 = \) \_
   8. \(2 + 6 = \) \_

9. \(4 + 3 = \) \_
   10. \(3 + 6 = \) \_

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Circle the larger part, and complete the number bond. Write the number sentence starting with the larger part.
Name ___________________________ Date ________________

Color the larger part and complete the number bond. Write the number sentence starting with the larger part.

1. ________ + ________ = ________
   
2. ________ = ________ + ________
   
3. ________ + ________ = ________
   
4. ________ = ________ + ________
Lesson 20: Apply the commutative property to count on from a larger addend.

Date: 5/9/13

5. \[
\begin{array}{c}
\includegraphics{image1} \\
\includegraphics{image2} \\
\end{array}
\]
\[
________ = \underline{\quad} + \underline{\quad}
\]

6. \[
\begin{array}{c}
\includegraphics{image3} \\
\includegraphics{image4} \\
\end{array}
\]
\[
\underline{\quad} + \underline{\quad} = \underline{\quad}
\]

7. \[
\begin{array}{c}
\includegraphics{image5} \\
\includegraphics{image6} \\
\end{array}
\]
\[
\underline{\quad} = \underline{\quad} + \underline{\quad}
\]
### Expression Cards

<table>
<thead>
<tr>
<th>7 + 3</th>
<th>3 + 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 + 2</td>
<td>2 + 8</td>
</tr>
<tr>
<td>9 + 0</td>
<td>0 + 9</td>
</tr>
<tr>
<td>8 + 1</td>
<td>1 + 8</td>
</tr>
<tr>
<td>6 + 3</td>
<td>3 + 6</td>
</tr>
</tbody>
</table>
Lesson 20: Apply the commutative property to count on from a larger addend.

Date: 5/9/13

<table>
<thead>
<tr>
<th>7 + 1</th>
<th>1 + 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 + 2</td>
<td>2 + 6</td>
</tr>
<tr>
<td>5 + 3</td>
<td>3 + 5</td>
</tr>
<tr>
<td>4 + 3</td>
<td>3 + 4</td>
</tr>
<tr>
<td>5 + 2</td>
<td>2 + 5</td>
</tr>
<tr>
<td>5 + 1</td>
<td>1 + 5</td>
</tr>
</tbody>
</table>
Lesson 20: Apply the commutative property to count on from a larger addend.

Date: 5/9/13

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>4 + 2</td>
<td>2 + 4</td>
</tr>
<tr>
<td>4 + 1</td>
<td>1 + 4</td>
</tr>
<tr>
<td>2 + 3</td>
<td>3 + 2</td>
</tr>
<tr>
<td>4 + 0</td>
<td>0 + 4</td>
</tr>
<tr>
<td>3 + 1</td>
<td>1 + 3</td>
</tr>
<tr>
<td>2 + 1</td>
<td>1 + 2</td>
</tr>
</tbody>
</table>
Lesson 20: Apply the commutative property to count on from a larger addend.

Date: 5/9/13

1. 45

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Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards.

Date: 5/9/13

Addition Chart
Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards.

Name ____________________________  Date __________________

Add the numbers on the pairs of cards. Write the number sentences. Color doubles red. Color doubles plus 1 blue.

1. 3 + 3 = ______
2. 4 + 4 = ______
3. 3 + 4 = ______
4. 5 + 4 = ______

Solve. Use your doubles to help. Draw and write the double that helped.

5. 5 + 4 = ______
   000000
   00000

6. 4 + 3 = ______
   000000
   00000

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Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards. 5/9/13

engageNY

1.F.9
Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards.

7. Solve the doubles and the doubles plus one number sentences.

(a) 0 + 0 = [ ] (a) 0 + 1 = [ ]
(b) 2 + 2 = [ ] (b) 2 + 3 = [ ]
(c) 3 + 3 = [ ] (c) 3 + 4 = [ ]
(d) 4 + 4 = [ ] (d) 4 + 5 = [ ]
(e) 3 + [ ] = 6 (e) 3 + [ ] = 7
(f) 5 + [ ] = 10 (f) 4 + [ ] = 9

8. Show how this strategy can help you solve: 5 + 6 = [ ]

9. Write a set of 4 related addition facts for letter (d).
Write the double and double plus one number sentence for the 5-group card.

Write the double and double plus one number sentence for the 5-group card.

- 
- 
- 
- 
-
Lesson 21 Homework

Name ____________________________ Date ____________

Draw the 5-group card to show a double. Write the number sentence to match the cards.

\[ \begin{array}{ccc}
4 & & 5 \\
\_ & & 4 \\
\_ & & \_ \\
\_ & & \_ \\
\end{array} \]

Fill in the 5-group cards in order from least to greatest, double the number, and write the number sentences.

\[ \begin{array}{ccc}
1 & & 2 \\
1 & & \_ \\
\_ & & \_ \\
\_ & & \_ \\
\end{array} \]

\[ \begin{array}{ccc}
4 & & \_ \\
\_ & & \_ \\
\_ & & \_ \\
\_ & & \_ \\
\end{array} \]

Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards.

NYS COMMON CORE MATHEMATICS CURRICULUM
Lesson 21: Visualize and solve doubles and doubles plus 1 with 5-group cards.

Date: 5/9/13

Solve the number sentences.

3 + 3 = ____  
5 + ____ = 10  
1 + ____ = 2

4 = ____ + 2  
8 = 4 + ____

Match the top cards to the bottom cards to show doubles plus 1.

1  
4  
3  
2

5  
2  
3  
4

Solve the number sentences. Write the double fact that helped you solve the double plus one.

2 + 3 = ____

3 + ____ = 7

4 + ____ = 9
Lesson 22: Look for and make use of repeated reasoning on the addition chart by solving and analyzing problems with common addends.

Date: 5/9/13

Name ___________________________ Date _________________

Use RED to color boxes with 0 as an addend. Find the total for each.

Use ORANGE to color boxes with 1 as an addend. Find the total for each.

Use YELLOW to color boxes with 2 as an addend. Find the total for each.

Use GREEN to color boxes with 3 as an addend. Find the total for each.

Use BLUE to color the boxes that are left. Find the total for each.

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1 + 0</td>
<td>1 + 1</td>
<td>1 + 2</td>
<td>1 + 3</td>
<td>1 + 4</td>
<td>1 + 5</td>
<td>1 + 6</td>
<td>1 + 7</td>
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<td>5 + 3</td>
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<td>6 + 1</td>
<td>6 + 2</td>
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<tr>
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<td>7 + 1</td>
<td>7 + 2</td>
<td>7 + 3</td>
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<tr>
<td>8 + 0</td>
<td>8 + 1</td>
<td>8 + 2</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 + 0</td>
<td>9 + 1</td>
<td></td>
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</tr>
</tbody>
</table>
Name ____________________________ Date ________________

Some of the addends in this chart are missing! Fill in the missing numbers.

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<td>1 + 8</td>
<td>1 + 9</td>
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<td>3 + 0</td>
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</tbody>
</table>
Solve the problems without counting all. Color the boxes using the key.

**Step 1:** Color problems with +1 or 1+ blue.

**Step 2:** Color remaining problems with +2 or 2+ green.

**Step 3:** Color remaining problems with +3 or 3+ yellow.

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<thead>
<tr>
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<td>7 + 1 = ___</td>
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<td>5 + ___ = 7</td>
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<td>8 + ___ = 10</td>
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<td>4 + ___ = 6</td>
<td>4 + 1 = ___</td>
<td>7 + 2 = ___</td>
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<tr>
<td>2 + ___ = 3</td>
<td>9 + 1 = ___</td>
<td>7 + 3 = ___</td>
<td>1 + ___ = 3</td>
</tr>
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</table>
Lesson 23: Look for and make use of structure on the addition chart by looking for and coloring problems with the same total.

Date: 5/9/13

<table>
<thead>
<tr>
<th>Totals of 10</th>
<th>Totals of 9</th>
<th>Totals of 8</th>
<th>Totals of 7</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>
Circle all the boxes that total 10. Make a straight line through all the boxes that total 8.

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<table>
<thead>
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<td>1</td>
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<td>7</td>
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<td>1</td>
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<td>8</td>
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<td>0</td>
<td>8</td>
<td>+</td>
<td>1</td>
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<td>+</td>
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<tr>
<td>9</td>
<td>+</td>
<td>0</td>
<td>9</td>
<td>+</td>
<td>1</td>
<td></td>
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</tbody>
</table>
Lesson 23 Homework

NYS COMMON CORE MATHEMATICS CURRICULUM

Lesson 23:

Look for and make use of structure on the addition chart by looking for and coloring problems with the same total.

Date: 5/9/13

Fill in the missing box and find the totals for all expressions. Use your completed addition chart to help you.

1. \[1 + 2 \quad 1 + 3\]
   \[2 + 2\]
   \[3 + 2 \quad 3 + 3\]

2. \[6 + 1 \quad 6 + 2\]
   \[7 + 1\]
   \[8 + 2\]
   \[9 + 1\]

3. \[4 + 4 \quad 4 + 5\]
   \[5 + 4\]
   \[6 + 4\]

4. \[2 + 4 \quad 2 + 6\]
   \[3 + 5\]
### Friendly Fact Go Around: Addition Strategies Review

<p>| | | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>2 + 1 = □</td>
<td>3 + 1 = □</td>
<td>5 + 1 = □</td>
</tr>
<tr>
<td>4 + 1 = □</td>
<td>6 + 1 = □</td>
<td>9 + 1 = □</td>
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<td>2 + 2 = □</td>
<td>2 + 3 = □</td>
<td>5 + 5 = □</td>
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<tr>
<td>3 + 3 = □</td>
<td>4 + 4 = □</td>
<td>4 + 5 = □</td>
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<tr>
<td>0 + 1 = □</td>
<td>1 + 3 = □</td>
<td>1 + 1 = □</td>
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<tr>
<td>2 + 2 = □</td>
<td>7 + 1 = □</td>
<td>3 + 3 = □</td>
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<td>1 + 5 = □</td>
<td>5 + 5 = □</td>
<td>3 + 4 = □</td>
</tr>
<tr>
<td>8 + 1 = □</td>
<td>4 + 4 = □</td>
<td>5 + 4 = □</td>
</tr>
</tbody>
</table>
Lesson 24: Practice to build fluency with facts to 10.

Date: 5/9/13
**Expression Cards**

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</tr>
<tr>
<td>0 + 2</td>
<td>8 + 2</td>
</tr>
<tr>
<td>9 + 0</td>
<td>0 + 3</td>
</tr>
<tr>
<td>9 + 1</td>
<td>1 + 8</td>
</tr>
<tr>
<td>6 + 3</td>
<td>4 + 6</td>
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<tr>
<td>7 + 2</td>
<td>1 + 7</td>
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<td>6 + 2</td>
<td>4 + 5</td>
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<td>6 + 1</td>
<td>0 + 6</td>
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<td>4 + 4</td>
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<td>5 + 1</td>
<td>3 + 5</td>
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</tr>
<tr>
<td>$4 + 2$</td>
<td>$4 + 4$</td>
</tr>
<tr>
<td>$0 + 8$</td>
<td>$4 + 1$</td>
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<tr>
<td>$2 + 3$</td>
<td>$3 + 3$</td>
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<tr>
<td>$4 + 0$</td>
<td>$5 + 0$</td>
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<tr>
<td>$3 + 1$</td>
<td>$3 + 4$</td>
</tr>
<tr>
<td>$5 + 4$</td>
<td>$2 + 2$</td>
</tr>
</tbody>
</table>

Practice to build fluency with facts to 10.

Date: 5/9/13
Lesson 24: Practice to build fluency with facts to 10.

Date: 5/9/13

1. \(2 + 1 = 3\)

2. \(4 + 1 = 5\)

3. \(5 + 5 = 10\)

4. \(3 + 4 = 7\)

5. \(2 + 6 = 8\)

6. \(7 + 3 = 10\)
Name _______________________________ Date _____________

Solve the number sentences. Use the key to color. Once the box is colored, you do not need to color it again.

5 + 2 = ____
3 + 3 = ____
____ = 4 + 4
____ = 5 + 4

7 + 2 = ____
7 = 1 + ____
8 + 2 = ____
10 = 1 + ____

2 + 3 = ____
2 = 1 + ____
3 + 4 = ____
10 = 5 + ____

Color doubles - Red.
Color +1 - Blue
Color +2 - Green
Color doubles +1 - Brown

CHALLENGE:
List the number sentences that can be colored more than 1 way.

__________________________ __________________________
Solve and sort the number sentences. One number sentence can go in more than one place when you sort.

<table>
<thead>
<tr>
<th>Doubles</th>
<th>Doubles +1</th>
<th>+1</th>
<th>+2</th>
<th>Mentally visualized 5-groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 + 1 =</td>
<td>6 + 2 =</td>
<td>2 + 3 =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 + 3 =</td>
<td>7 + 1 =</td>
<td>2 + 2 =</td>
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<tr>
<td></td>
<td>8 + 2 =</td>
<td>3 + 4 =</td>
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<td></td>
<td>10 = 1 +</td>
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</tr>
<tr>
<td></td>
<td>_____ = 5 + 2</td>
<td></td>
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</tr>
</tbody>
</table>

Write your own number sentences and add them to the chart.

5 + 1 = ___
3 + 3 = ___
_____ = 4 + 4
_____ = 5 + 4
5 + 2 = ___
3 + 4 = ___
8 + 2 = ___
____ = 5 + 4
10 = 1 + ____
____ = 4 + 4
____ = 5 + 4

5 + 1 = ___
3 + 3 = ___
10 = 1 + ____
____ = 5 + 2

3 + 4 = ___
8 + 2 = ___
____ = 5 + 4
10 = 1 + ____
____ = 4 + 4
____ = 5 + 4

5 + 1 = ___
3 + 3 = ___
10 = 1 + ____
____ = 5 + 2

3 + 4 = ___
8 + 2 = ___
____ = 5 + 4
10 = 1 + ____
____ = 4 + 4
____ = 5 + 4

5 + 1 = ___
3 + 3 = ___
10 = 1 + ____
____ = 5 + 2

3 + 4 = ___
8 + 2 = ___
____ = 5 + 4
10 = 1 + ____
____ = 4 + 4
____ = 5 + 4
Solve and practice the math facts.

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<tbody>
<tr>
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<td>1 + 1</td>
<td>1 + 2</td>
<td>1 + 3</td>
<td>1 + 4</td>
<td>1 + 5</td>
<td>1 + 6</td>
<td>1 + 7</td>
<td>1 + 8</td>
<td>1 + 9</td>
</tr>
<tr>
<td>2 + 0</td>
<td>2 + 1</td>
<td>2 + 2</td>
<td>2 + 3</td>
<td>2 + 4</td>
<td>2 + 5</td>
<td>2 + 6</td>
<td>2 + 7</td>
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<tr>
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<tr>
<td>10 + 0</td>
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</table>
Lesson 25: Solve add to with change unknown math stories with addition and relate to subtraction. Model with materials and write corresponding number sentences.
Solve add to with change unknown math stories with addition and relate to subtraction. Model with materials and write corresponding number sentences.

Date: 5/9/13
Lesson 25 Problem Set

Name _____________________________  Date ___________________

Break the total into parts. Write a number bond and addition and subtraction number sentences to match the story.

1. Rachel and Lucy are playing with 5 trucks. If Rachel is playing with 2 of them, how many is Lucy playing with?

   Lucy is playing with _______ trucks.

   2 + 1 = 3
   3 - 2 = 1

2. Jane had 9 fish at the end of the day. She had 7 fish before she ate lunch. How many fish did she catch after lunch?

   Jane caught ________ fish after lunch.

   9 - 7 = 2
   2 + 1 = 3

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3. Dad bought 6 shirts. The next day he returned some of them. Now he has 2 shirts. How many shirts did Dad return?

Dad returned ______ shirts.

4. John had 3 strawberries. Then his friend gave him more fruit. Now John has 7 pieces of fruit. How many pieces of fruit did John's friend give him?

John's friend gave him ______ pieces of fruit.
Lesson 25 Exit Ticket

Name ___________________________ Date ________________

Solve the math story. Complete the number bonds and number sentences. Color the unknown number yellow.

Rich bought 6 cans of soda on Monday.
He bought some more on Tuesday.
Now he has 9 cans of soda.
How many cans did Rich buy on Tuesday?

Rich bought _________ cans.

\[
\begin{array}{ccc}
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\phantom{-} & \phantom{-} & \phantom{-} \\
\phantom{-} & \phantom{-} & \phantom{-} \\
\phantom{-} & \phantom{-} & \phantom{-} \\
\phantom{-} + & \phantom{-} & \phantom{-} \\
\phantom{-} & \phantom{-} & \phantom{-} \\
\phantom{-} - & \phantom{-} & \phantom{-} \\
\phantom{-} & \phantom{-} & \phantom{-} \\
\end{array}
\]

\[=\]

\[=\]
Break the total into parts. Write a number bond and addition and subtraction number sentences to match the story.

1. Six flowers bloomed on Monday. Some more bloomed on Tuesday. Now there are 8 flowers. How many flowers bloomed on Tuesday?

2. Below are the balloons that Mom bought. She bought 4 balloons for Bella and the rest of the balloons were for Jim. How many balloons did she buy for Jim?
Draw a picture to solve the math story.

3. Missy buys some cupcakes and 2 cookies. Now she has 6 desserts. How many cupcakes did she buy?

Missy bought _______ cupcakes.

4. Jim invites 9 friends to his party. 3 friends arrived late, but the rest came early. How many friends came early?

______ friends came early.

5. Mom paints her fingernails on both hands. First she paints 2 red. She paints the rest pink. How many fingernails are pink?

Mom paints _______ fingernails pink.
Lesson 26: Count on using the number path to find an unknown part.

Date: 5/9/13
Name ____________________________ Date __________

Use the number path to solve.

1. 6 - 4 = _____  4 + _____ = 6

2. 8 - 5 = _____  5 + _____ = 8

3. 9 - 6 = _____  6 + _____ = 9

4. 9 - 3 = _____  3 + _____ = 9
Use the number path to help you solve.

1 2 3 4 5 6 7 8 9 10

5. \[5 - 4 = \square\] \[4 + \square = 5\]

6. \[5 - 1 = \square\] \[1 + \square = 5\]

7. \[7 - 5 = \square\] \[5 + \square = 7\]

8. \[10 - 6 = \square\] \[6 + \square = 10\]

9. \[9 - 3 = \square\] \[3 + \square = 9\]
Lesson 26 Exit Ticket

Name _______________________________  Date __________________

Use the number path to solve. Write the addition sentence you used to help you solve.

1  2  3  4  5  6  7  8  9  10

a) 7 - 5 = ______  ____________

b) 9 - 2 = ______  ____________

c) _____ = 10 - 3  ____________
Use the number path to solve.

1. 1 2 3 4 5 6 7 8 9 10

3 - 2 = 1

2 + 1 = 3

5 - 3 = _____

3 + ____ = 5

2. 1 2 3 4 5 6 7 8 9 10

8 - 6 = ____

6 + ____ = 8

7 - 4 = ____

4 + ____ = 7

8 - 2 = ____

9 - 6 = ____

Name ____________________________ Date ____________

Lesson 26: Count on using the number path to find an unknown part.

1.G.24
Use the number path to solve. Match the addition sentence that can help you.

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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

3. 6 - 4 = ______ 6 + 4 = 10

9 - 5 = ______ 10 = 7 + 3

10 - 6 = ______ 4 + 5 = 9

10 - 7 = ______ 6 = 4 + 2

Write an addition and subtraction number sentence for the number bond. You may use the number path to solve.

8

3

9

3

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148
Count on using the number path to find an unknown part (Day 2 of Lesson 26).

<table>
<thead>
<tr>
<th>Name</th>
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<td>10</td>
</tr>
</tbody>
</table>

Rewrite the subtraction number sentence as an addition number sentence. Place a □ around the unknown. Use the number path if you want to.

1. \(4 - 3 = \) \[□\] \[\square\] + \[\square\] = \[\square\]

2. \(6 - 2 = \) \[\square\] + \[\square\] = \[\square\]

3. \(7 - 3 = \) \[\square\] + \[\square\] = \[\square\]

4. \(9 - 6 = \) \[\square\]

5. \(10 - 2 = \) \[\square\]

Use the number path to count on.

6. \(8 - 4 = \square\) \[\square\] + \[\square\] = 8

7. \(9 - 5 = \square\) \[\square\] + \[\square\] = 9
Lesson 27: Count on using the number path to find an unknown part (Day 2 of Lesson 26).

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8. \(10 - 1 = \) ______ 9. \(9 - 2 = \) ______

Pick the best way to solve the problem. Check the box.

(a) \(10 - 9 = \) ______

(b) \(9 - 1 = \) ______

(c) \(8 - 5 = \) ______

(d) \(8 - 6 = \) ______

(e) \(7 - 4 = \) ______

(f) \(6 - 3 = \) ______
Ben thinks to solve 7-6 you should count back and Pat thinks you should count on. Which is the best way to solve this expression? Make a simple math drawing to show why.

\[ 7 - 6 = \phantom{000} \]
Use the number path to complete the number bond and write an addition and a subtraction sentence to match.

1.

Use the number path to complete the number bond and write an addition and a subtraction sentence to match.

Solve the number sentences. Pick the best way to solve. Check the box.

a) 9 - 7 = ______  
   Count on  
   Count back

b) 8 - 2 = ______  
   Count on  
   Count back

c) 7 - 5 = ______  
   Count on  
   Count back
Solve the number sentence. Pick the best way to solve. Use the number path to show why.

7 - 5 = _____

9 - 1 = _____

10 - 8 = ___

I counted _____________ because it needed fewer hops.

Make a math drawing or write a number sentence to show why this is best.
Name _____________________________     Date ______________

Read the story. Draw a horizontal line through the items that are leaving the story.

Then complete the number bond, sentence and statement.

(a) There are 5 toy airplanes flying at the park.
    1 went down and broke.
    How many airplanes are still flying?

\[
5 - 1 = \_
\]

There are ________ airplanes still flying.

(b) I had 6 eggs from the store.
    3 of them were cracked.
    How many eggs did I have that were not cracked?

\[
6 - \_ = \_
\]

________ eggs were not cracked.
Draw a number bond and math drawing to help you solve the problems.

(c) Kate saw 8 cats playing in the grass.  
3 went away to chase a mouse.  
How many cats remained in the grass?

\[
\begin{align*}
\text{______ - _______} & = \text{______} \\
\text{________ cats remained in the grass.}
\end{align*}
\]

(d) There are 7 mango slices.  
2 of them were eaten.  
How many mango slices are left to eat?

\[
\begin{align*}
\text{______ - _______} & = \text{______} \\
\text{There are _________ mango slices left.}
\end{align*}
\]
Lesson 28 Exit Ticket

Name ____________________________ Date ____________

Read the problem. Make a math drawing to solve.

There were 9 kites flying in the park. 3 kites got caught in trees. How many kites were still flying?

___ - ___ = ___

____ kites were still flying.
Lesson 28 Homework

Name ________________________________ Date _________________

Read story. Make a math drawing to solve.

1. There were 6 hot dogs on the grill. 2 finish cooking and are removed. How many hot dogs remain on the grill?

   ![Math drawing]

   \[6 - ____ = ____\]

   There are ____ hot dogs remaining on the grill.

2. Bob buys 8 new toy cars. He takes 3 from the bag. How many cars are still in the bag?

   ![Math drawing]

   \[____ - ____ = ____\]

   ____ cars are still in the bag.

3. Kira sees 7 birds in the tree. 3 birds fly away. How many birds are still in the tree?

   ![Math drawing]

   \[____ - ____ = ____\]

   ____ birds are still in the tree.
4. Brad has 9 friends over for a party. 6 friends get picked up. How many friends are still at the party?

\[ \text{___ - ___ = ___} \]

\[ \text{___ friends are still at the party.} \]

5. Jordan is playing with 10 cars. He gave 7 to Kate. How many cars is Jordan playing with now?

\[ \text{___ = ___ - ___} \]

\[ \text{Jordan is playing with ___ cars now.} \]

6. Tony takes 4 books from the bookshelf. There were 10 books on the shelf to start. How many books are on the shelf now?

\[ \text{___ = ___ - ___} \]

\[ \text{___ books are on the shelf now.} \]
Lesson 29 Problem Set

Name ____________________________  Date ________________

Complete the story and solve. Label the number bond. Color the missing part in the number sentence and number bond.

1. There are ___ apples.
   _____ have worms. Yuck!
   How many good apples are there?
   There are _____ good apples.

   

2. _____ books are in the case.
   _____ books are on the top shelf.
   How many books are on the bottom shelf?
   _____ books are on the bottom shelf.

   

Lesson 29:
Solve take apart with addend unknown math stories with math drawings, equations and statements, circling the known part to find the unknown.

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Lesson 29

Solution Set

Use number bonds and math drawings in a line to solve.

3. There are 8 animals at the pond.
   2 are big. The rest are small.
   How many are small?
   _____ animals are small.

4. There are 7 students in the class.
   _____ are girls.
   How many students are boys?
   _____ students are boys.
Name ___________________________________________ Date ____________________

Read the story. Make a math drawing to solve.

There are 9 baseball players on the team. 7 are on the bench. How many are not on the bench?

_____ - ____ = ___

_____ players are not on the bench.
Read the math stories. Make math drawings to solve.

1. Tom has a box of 7 crayons. 5 crayons are red. How many crayons are not red?

\[ 7 - 5 = 2 \]

_____ crayons are not red.

2. Mary picks 8 flowers. 2 are daisies. The rest are tulips. How many tulips does she pick?

\[ 8 - 2 = 6 \]

Mary picks ____ tulips.

3. There are 9 pieces of fruit in the bowl. 4 are apples. The rest are oranges. How many pieces of fruit are oranges?

\[ 9 - 4 = 5 \]

The bowl has ______ oranges.
4. Mom and Ben make 10 cookies. 6 are stars. The rest are round. How many cookies are round?

5. The parking lot has 7 spaces. 2 cars are parked in the lot. How many more cars can park in the lot?

6. Liz has 2 fingers with band aids. How many fingers are not hurt?
Solve the math stories. Complete and label the number bond and the picture number bond. Lightly shade in the solution.

1. Jill was given a total of 5 flowers for her birthday. She put 3 in one vase and the rest in another vase. How many did she put in the other vase?

\[
3 + \square = 5
\]
\[
5 - 3 = \square
\]

2. Kate and Nana were baking cookies. They made 5 heart-shaped cookies and then made some square cookies. They made 8 cookies altogether. How many square cookies did they make? Draw and solve.

\[
5 + \square = 8
\]
\[
8 - 5 = \square
\]
Solve. Complete and label the number bond and the picture number bond. Circle the unknown number.

3. Bill has 2 trucks. His friend, James came over with some more. Together they had 6 trucks. How many trucks did James bring over?

\[
\begin{align*}
\text{_____} + \text{_____} &= 6 \\
6 - \text{_____} &= \text{_____}
\end{align*}
\]

James brought over ______ trucks.

4. Jane caught 5 fish before she stopped to eat lunch. After lunch she caught some more. At the end of the day she had 9 fish. How many fish did she catch after lunch?

\[
\begin{align*}
\text{_____} + \text{_____} &= 9 \\
9 - \text{_____} &= \text{_____}
\end{align*}
\]

Jane caught ______ fish after lunch.
1. Toby collects shells. On Monday he finds 6 shells. On Tuesday he finds some more. Toby finds a total of 9 shells. How many shells does Toby find on Tuesday?

\[ \square + \square = \square \]

Toby finds ________ shells on Tuesday.

\[ \square - \square = \square \]
Lesson 30 Homework

Name ___________________________ Date ____________

Solve the math stories. Draw and label a picture number bond to solve. Circle the unknown number.

1. Grace has a total of 7 dolls. She put 2 in the toy box and takes the rest to her friends. How many dolls does she take to her friends?

\[ ___ + ___ = 7 \]

\[ 7 - ___ = ____ \]

Grace takes _____ dolls to her friends.

2. Jack can invite 8 friends to his birthday party. He makes 3 invitations. How many invitations does he still need to make?

\[ ___ + ___ = 8 \]

\[ 8 - ___ = ____ \]

Jack still needs to make_______ invitations.
3. There are 9 dogs at the park. 5 dogs play with balls. The rest are eating bones. How many dogs are eating bones?

\[
\begin{align*}
\text{____ + ____} & = 9 \\
\text{_____ dogs are eating bones.} \\
\text{____ - ______ = _____}
\end{align*}
\]

4. There are 10 students in Jim’s class. Seven bought lunch at school. The rest brought lunch from home. How many brought lunch from home?

\[
\begin{align*}
\text{_____ + ______ = ______} \\
\text{_____ - ______ = ______} \\
\text{_____ students brought lunch from home.}
\end{align*}
\]
Lesson 31 Problem Set 1•1

Name ___________________________ Date ______________

Make a math drawing and circle the part you know. Cross out the unknown part. Complete the number sentence and number bond.

1. Kate made 7 cookies. Bill ate some. Now Kate has 5 cookies. How many cookies did Bill eat?

![Math drawing with five cookies and a blank space for the unknown number]

Bill ate _________ cookies.

2. On Monday Tim had 8 pencils. Tuesday, he lost some pencils. On Wednesday, he has 4 pencils. How many pencils did Tim lose?

![Math drawing with eight pencils and a blank space for the unknown number]

Tim lost _________ pencils.
3. A store had 6 shirts on the rack. Now there are 2 shirts on the rack. How many shirts were sold?

__________ shirts were sold.

4. There were 9 children at the park. Some children went inside. 5 children stayed. How many children went inside?

__________ children went inside.
Name ________________________________ Date ______________

Make a math drawing and circle the part you know. Cross out the unknown part.

Complete the number sentence and number bond.

1. Deb blows up 9 balloons. Some balloons popped. 3 balloons are left. How many balloons popped?

______ balloons popped.  

\[
\begin{array}{c}
\square \quad - \\
\square \\
\square \\
\square
\end{array}
\]
Lesson 31 Homework

Name ____________________________ Date _______________

Make a math drawing and circle the part you know. Cross out the unknown part. 
Complete the number sentence and number bond.

1. Missy gets 6 presents for her birthday. She unwraps some. Four are still wrapped. 
   How many presents did she unwrap?

   ![Diagram]

   Missy unwrapped ________ presents.

   
   Missy unwrapped ________ presents.  
   
   
   

   6 - □ = □

2. Ann has a box of 8 markers. Some fall on the floor. 6 are still in the box. How 
   many markers fell on the floor?

   ![Diagram]

   _____ markers fell on the floor.

   
   
   

   □ - □ = □

3. Nick makes 7 cupcakes for his friends. Some cupcakes were eaten. Now there are 
   5 left. How many cupcakes were eaten?

   ![Diagram]

   _____ cupcakes were eaten.

   
   
   

   □ - □ = □
4. A dog has 8 bones. He hides some. He still has 5 bones. How many bones are hidden?

\[
\begin{array}{c}
\begin{array}{c}
\square - \square = \square
\end{array}
\end{array}
\]

_____ bones are hidden.

5. The cafeteria table can seat 10 students. Some of the seats are taken. 7 seats are empty. How many seats are taken?

\[
\begin{array}{c}
\begin{array}{c}
\square - \square = \square
\end{array}
\end{array}
\]

_____ seats are taken.

6. Ron has 10 sticks of gum. He gives one stick to each of his friends. Now he has 3 sticks of gum left. How many friends did Ron share with?

\[
\begin{array}{c}
\begin{array}{c}
\square - \square = \square
\end{array}
\end{array}
\]

Ron shared with _____ friends.
Lesson 32: Solve put together/take apart with addend unknown.

Name ___________________________  Date _____________

Solve. Use simple math drawings to show how to solve with addition and subtraction. Label the number bond.

1. There are 5 apples. 
   4 are Sam’s. The rest are Jims. 
   How many are Jim’s?

   \[
   \begin{align*}
   &\hspace{1cm} + \hspace{1cm} = \hspace{1cm} 5 \\
   &\hspace{1cm} - \hspace{1cm} = \hspace{1cm} 
   \end{align*}
   \]

2. There are 8 mushrooms. 5 are black. 
   The rest are white. How many are white?

   \[
   \begin{align*}
   &\hspace{1cm} + \hspace{1cm} = \hspace{1cm} 8 \\
   &\hspace{1cm} - \hspace{1cm} = \hspace{1cm} 
   \end{align*}
   \]
Lesson 32: Solve put together/take apart with addend unknown.

Date: 5/9/13

Use the number bond to complete the number sentences. Use simple math drawings to tell math stories.

3. 

\[ \square + \square = 8 \]

\[ 8 - \square = \square \]

4. 

\[ \square + \square = \square \]

\[ \square - \square = \square \]
Lesson 32 Exit Ticket

NYS COMMON CORE MATHEMATICS CURRICULUM

Read the math story. Make a math drawing and solve.

Glenn has 9 pens. 5 are black. The rest are blue. How many pens are blue?

_____ + _____ = _____

____ - _____ = _____

_____ pens are blue.

____ + _____ = _____
Match the math stories to the number sentences that tell the story. Make a math drawing to solve.

1. There are 10 flowers in a vase. 6 are red. The rest are yellow. How many are yellow?

   There are 9 apples in a basket. 6 are red. The rest are green. How many are green?

   Kate has her fingernails painted. 3 have designs. The rest are plain. How many are plain?
Lesson 32 Homework

Use the number bond to tell an addition and subtraction math story with pictures. Write an addition and subtraction number sentence.

2.

\[ \begin{array}{c}
7 \\
4 \end{array} \]

\[ \boxed{\quad + \quad = \quad} \]

\[ \boxed{\quad - \quad = \quad} \]

3.

\[ \begin{array}{c}
8 \\
5 \end{array} \]

\[ \boxed{\quad + \quad = \quad} \]

\[ \boxed{\quad - \quad = \quad} \]
Cross off, when needed, to subtract.

1. \(6 - 1 = \_
\)
2. \(6 - 0 = \_
\)

If you want, make a 5-groups drawing for each problem like the ones above. Show the subtraction.

3. \(7 - 1 = \_
\)
4. \(7 - 0 = \_
\)
5. \(10 - 1 = \_
\)
6. \(10 - 0 = \_
\)
7. \(8 - 1 = \_
\)
8. \(8 - 0 = \_
\)
9. \(9 - 1 = \_
\)
10. \(9 - 0 = \_
\)
Cross off, when needed, to subtract.


\[ \begin{align*}
6 - 1 &= \_\_ \\
8 - 1 &= \_\_ \\
9 - 0 &= \_\_ 
\end{align*} \]

Subtract.

14.   15.   16.   

\[ \begin{align*}
7 - 1 &= \_\_ \\
8 - 0 &= \_\_ \\
9 - 1 &= \_\_ 
\end{align*} \]

Fill in the missing number. Visualize your 5-groups to help you.

(a) 6 - 0 = ___  (b) 6 - 1 = ___
(c) 7 - ___ = 7  (d) 7 - 1 = ___
(e) 8 - 0 = ___  (f) 8 - ___ = 7
(g) 9 - ___ = 9  (h) 9 - 1 = ___
(i) 10 - ___ = 10 (j) 10 - ___ = 9
Complete the numbers sentences. If you want, use 5-group drawings to show the subtraction.

1. $9 - 1 = ___$
2. $8 = ___ - 0$
3. $8 = ___ - 1$
4. $10 = 10 - ___$
Name ________________________________ Date ____________________

Show the subtraction. If you want, use a 5-groups drawing for each problem.

1.  
2.  

9 - 1 = ___  
9 - 0 = _____

3.  
4.  

6 - ____ = 6  
6 = 7 - _____

Show the subtraction. If you want, use a 5-groups drawing like the model for each problem.

5.  
6.  

9 - _____ = 9  
8 = 8 - _____

7.  
8.  

10 - _____ = 9  
7 - ____ = 7
Write the subtraction number sentence to match the 5-group drawing.

9.     10.     11.

___ - ___  = ___  ___ - ___  = ___  ___ - ___  = ___

12.     13.

___ - ___  = ___  ___ - ___  = ___

Fill in the missing number. Visualize your 5-groups to help you.

(a) 7 - ___ = 6     (b) 0 = 7 - ____
(c) 8 - ___ = 7     (d) 6 - ___ = 5
(e) 8 = 9 - ____    (f) 9 = 10 - ____
(g) 10 - ___ = 10   (h) 9 - ___ = 8
Cross off to subtract.

1. 6 - 6 = ___  
2. 6 - 5 = ___

Subtract. Make a math drawing, like the ones above, for each.

3. 7 - 7 = ___  
4. 7 - 6 = ___

5. 10 - 10 = ___  
6. 10 - 9 = ___

7. 8 - 8 = ___  
8. 8 - 7 = ___

9. 9 - 9 = ___  
10. 9 - 8 = ___
Cross off, when needed, to subtract.


\[ 6 - 6 = \quad 8 - 8 = \quad 9 - 8 = \quad \]

Subtract. Make a math drawing, like the ones above, for each.

14.  15.  16.

\[ 7 - 7 = \quad 8 - 7 = \quad 9 - 9 = \quad \]

Fill in the missing number. Visualize your 5-groups to help you.

(a) \( 6 - 6 = \)  
(b) \( 6 - 5 = \)  
(c) \( 7 - \) = 0  
(d) \( 7 - 6 = \)  
(e) \( 8 - 8 = \)  
(f) \( 8 - \) = 1  
(g) \( 9 - \) = 0  
(h) \( 9 - 8 = \)  
(i) \( 10 - \) = 10  
(j) \( 10 - \) = 1
Name ________________________________ Date __________________

Make 5-group drawings to show the subtraction.

1.  

2.  

9 - ____ = 1  

0 = 10 - ____  

3.  

4.  

1 = ____ - 7  

0 = ____ - 9
Lesson 34:
Model n-n and n-(n-1) pictorially and as subtraction sentences.

Name ____________________________ Date ______________

Cross off to subtract.

1. ●●●●● ☐☐☐☐ 2. ●●●●● ☐☐☐☐

\[ 10 - 10 = ____ \] \[ 9 - 8 = ____ \]

Make a 5-group drawing like the ones above. Show the subtraction.

3. 4.

\[ 1 = ____ - 7 \] \[ 8 - ____ = 0 \]

5. 6.

\[ 0 = ____ - 7 \] \[ 6 - ____ = 1 \]

Make a 5-groups drawing like the model for each problem. Show the subtraction.

5. 6.

\[ 9 - ____ = 1 \] \[ 0 = 8 - ____ \]
Write the subtraction number sentence to match the 5-group drawing.

9.  

10.  

11.  

___ - ___ = ___  

___ - ___ = ___  

___ - ___ = ___  

12.  

13.  

___ - ___ = ___  

___ - ___ = ___  

Fill in the missing number. Visualize your 5-groups to help you.

(a) 7 - ____ = 0  
(b) 1 = 7 - ____  
(c) 8 - ____ = 1  
(d) 6 - ____ = 0  
(e) 0 = 9 - ____  
(f) 1 = 10 - ____  
(g) 10 - ____ = 0  
(h) 9 - ____ = 1
Lesson 35 Problem Set

Name ____________________________ Date _______________________

Solve the sets of number sentences. Look for “easy groups” to cross off.

1.  2.  3.

\[
\begin{array}{c}
\bigcirc \quad \bigcirc \\
\bigcirc \quad \bigcirc \\
\bigcirc \quad \bigcirc \\
\end{array}
\]

\[
\begin{array}{c}
\bigcirc \quad \bigcirc \\
\bigcirc \quad \bigcirc \\
\end{array}
\]

\[
\begin{array}{c}
\bigcirc \quad \bigcirc \\
\bigcirc \quad \bigcirc \\
\end{array}
\]

\[
\begin{array}{c}
6 - 5 = \_\_ \\
8 - 3 = \_\_ \\
9 - 4 = \_\_ \\
6 - 1 = \_\_ \\
8 - 5 = \_\_ \\
9 - 5 = \_\_ \\
\end{array}
\]

Subtract. Make a math drawing, like the ones above, for each. Write a number bond.

4.  5.

\[
\begin{array}{c}
\square \quad \square \\
\square \quad \square \\
\end{array}
\]

\[
\begin{array}{c}
\square \quad \square \\
\square \quad \square \\
\end{array}
\]

\[
\begin{array}{c}
7 - 5 = \_\_ \\
7 - 2 = \_\_ \\
10 - 5 = \_\_ \\
\end{array}
\]
Solve. Visualize your 5-groups to help you.

(a) 7\(-\)5\(=\)___  (b) 7\(-\)___\(=\)5  (c) 8\(-\)3\(=\)___
(d) 9\(-\)___\(=\)4  (e) 9\(-\)___\(=\)5  (f) 8\(-\)___\(=\)3

Complete the number bond. Complete the number sentence.

6. 4\(-\)2\(=\)___  7. 6\(-\)3\(=\)___

8. 10\(-\)5\(=\)___  9. 8\(-\)4\(=\)___

10. 8\(-\)4\(=\)___  11. 6\(-\)3\(=\)___

Complete the number sentences below. Circle the strategy that can help.

(a) 7\(-\)5\(=\)___  (b) 7\(-\)2\(=\)___  (c) 8\(-\)4\(=\)___
(d) 8\(-\)3\(=\)___  (e) 8\(-\)5\(=\)___  (f) 10\(-\)5\(=\)___
Name ___________________________ Date __________________

Solve the number sentences. Make a number bond. Draw a picture or write a statement about the strategy that helped you.

1. _____ – 5 = 5  
2. 8 – _____ = 4  
3. 9 – ____ = 4

Doubles helped me solve.

6 – 3 = 3
Lesson 35 Homework

Solve the sets of number sentences. Write a related number sentence that would have the same number bond. Look for “easy groups” to cross off.

1.  
\[ \square \quad \square \]  
\[ \square \quad \square \quad \square \quad \square \]  
7 - 5 = ____

2.  
\[ \square \quad \square \]  
\[ \square \quad \square \quad \square \]  
6 - 5 = ____

3.  
\[ \square \quad \square \]  
\[ \square \quad \square \quad \square \]  
9 - ____ = 4

___ - ____ = ___  
___ - ____ = ___  
___ - ____ = ___

Subtract. Make a math drawing, like the ones above, for each. Write a number bond.

4.  
\[ \square \quad \square \]  
\[ \square \]  
\[ \square \]  
10 - 5 = ______

5.  
\[ \square \quad \square \]  
\[ \square \]  
\[ \square \]  
8 - 5 = _____

8 - ____ = 5

Solve. Visualize 5-groups to help you.

(a) 9 - ____ = 4  
(b) ____ - 5 = 5  
(c) 8 - ____ = 5

(d) ____ - 5 = 2  
(e) ____ - 5 = 3  
(f) ____ - 4 = 5
Complete the number sentence. Make a number bond.

6. 7. 8.

6 - 3 = ____  ____ - 5 = 5  8 - ____ = 4

Match the number sentence to the strategy that helps you solve.

7 - ____ = 2

8 - ____ = 3

10 - ____ = 5

____ - 3 = 3

8 - ____ = 4

9 - ____ = 5
Lesson 36: Relate subtraction from ten to corresponding decompositions.

Date: 5/9/13

Solve the sets. Cross off on the 5-groups.
Use the first number sentence to help you solve the next.

1.  
   2.  
   3.  

   10 - 9 = ___  
   10 - 6 = ___  
   10 - 3 = ___  

   10 - 1 = ___  
   10 - 4 = ___  
   10 - 7 = ___

Make a math drawing and solve.

4.  
   5.  
   6.  

   10 - 4 = ___  
   10 - 5 = ___  
   10 - 8 = ___  

   10 - 6 = ___  
   10 - 2 = ___
Lesson 36 Problem Set

Subtract. Then write the related subtraction sentence.
Make a math drawing if needed and complete a number bond for each.

7. 10 - 8 = ___
8. 10 - 9 = ___

9. 10 - 3 = ___
10. 10 - 6 = ___

Fill in the missing part. Write the 2 matching subtraction sentence.

(a) ____________________________
(b) ____________________________

(c) ____________________________
(d) ____________________________

(e) ____________________________
Fill in the missing part. Draw a math picture if needed. Write the 2 matching subtraction sentences.

1.  
   \[
   \begin{array}{c}
   \text{10} \\
   \text{7} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{10} \\
   \text{2} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{10} \\
   \text{4} \\
   \hline
   \end{array}
   \]

2.  
   \[
   \begin{array}{c}
   \text{10} \\
   \text{7} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{10} \\
   \text{2} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{10} \\
   \text{4} \\
   \hline
   \end{array}
   \]

3.  
   \[
   \begin{array}{c}
   \text{10} \\
   \text{7} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{10} \\
   \text{2} \\
   \hline
   \end{array}
   \quad \begin{array}{c}
   \text{10} \\
   \text{4} \\
   \hline
   \end{array}
   \]
Lesson 36 Homework

Name _______________________________ Date _____________________

Make a math drawing and solve. Use the first number sentence to help you write a related number sentence that matches your picture.

1.  
2.  
3.  

10 - 2 = ____ 10 - 1 = ____ 10 - 7 = ____
___ - ___ = ___  ___ - ___ = ___  ___ - ___ = ___

Subtract. Then write the related subtraction sentence. Make a math drawing if needed, and complete a number bond for each.

4.  
5.  
6.  

10 - 2 = ___ 10 - ___ = 9 10 - ___ = 6

10 - ___ = 1 10 - ___ = 10 - 5

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Lesson 36: Relate subtraction from ten to corresponding decompositions.
Date: 5/9/13

1.1.46
Use a ten-frame to complete the number bond. Match the number bond to the related subtraction sentence. Write the other related subtraction number sentence.

10 - 5 = ___  ___ - ___ = ___

10 - 1 = ___  ___ - ___ = ___

10 - 2 = ___  ___ - ___ = ___

10 - 4 = ___  ___ - ___ = ___

10 - 3 = ___  ___ - ___ = ___
Lesson 36: Relate subtraction from ten to corresponding decompositions.

Date: 5/9/13

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Lesson 36: Relate subtraction from ten to corresponding decompositions.

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Lesson 36: Relate subtraction from ten to corresponding decompositions.

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Lesson 36: Relate subtraction from ten to corresponding decompositions.

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Lesson 36
Relate subtraction from ten to corresponding decompositions.

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Common Core
Lesson 36: 5/9/13
Relate subtraction from ten to corresponding decompositions.

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1.54
Solve the sets. Cross off on the 5-groups. Write the related subtraction sentence that would have the same number bond.

1. \[ 9 - 8 = \]  
2. \[ 9 - 7 = \]  
3. \[ 9 - 9 = \]

\[ 9 - 1 = \]  

Make a 5-group drawing. Solve and write a related subtraction sentence that would have the same number bond. Cross off to show.

4. \[ 9 - 6 = \]  
5. \[ 9 - 4 = \]  
6. \[ 9 - 3 = \]
Subtract. Then write the related subtraction sentence. Make a math drawing if needed and complete a number bond.

7.  
   \[
   \begin{array}{c}
   \hline
   \text{9 - 5 = ___} \\
   \text{______________} \\
   \end{array}
   \]

8.  
   \[
   \begin{array}{c}
   \hline
   \text{9 - 8 = ___} \\
   \text{______________} \\
   \end{array}
   \]

9.  
   \[
   \begin{array}{c}
   \hline
   \text{9 - 7 = ___} \\
   \text{______________} \\
   \end{array}
   \]

10.  
   \[
   \begin{array}{c}
   \hline
   \text{9 - 3 = ___} \\
   \text{______________} \\
   \end{array}
   \]

11. Fill in the missing part. Write the 2 matching subtraction sentences.

   (a)  
   \[
   \begin{array}{c}
   \hline
   \text{9} \\
   \text{0} \\
   \text{______________} \\
   \end{array}
   \]

   (b)  
   \[
   \begin{array}{c}
   \hline
   \text{8} \\
   \text{9} \\
   \text{______________} \\
   \end{array}
   \]

   (c)  
   \[
   \begin{array}{c}
   \hline
   \text{9} \\
   \text{2} \\
   \text{______________} \\
   \end{array}
   \]

   (d)  
   \[
   \begin{array}{c}
   \hline
   \text{9} \\
   \text{6} \\
   \text{______________} \\
   \end{array}
   \]

   (e)  
   \[
   \begin{array}{c}
   \hline
   \text{5} \\
   \text{9} \\
   \text{______________} \\
   \end{array}
   \]
Fill in the missing part. Draw a math picture if needed. Write the 2 matching subtraction sentences.

1.  
   \[
   \begin{array}{c}
   9 \\
   7
   \end{array}
   \quad \begin{array}{c}
   2
   \end{array}
   \quad \begin{array}{c}
   4
   \end{array}
   \quad \begin{array}{c}
   8
   \end{array}
   \quad \begin{array}{c}
   208
   \end{array}
   \]

2.  
   \[
   \begin{array}{c}
   9 \\
   3
   \end{array}
   \quad \begin{array}{c}
   4
   \end{array}
   \quad \begin{array}{c}
   8
   \end{array}
   \quad \begin{array}{c}
   208
   \end{array}
   \]

3.  
   \[
   \begin{array}{c}
   9 \\
   4
   \end{array}
   \quad \begin{array}{c}
   8
   \end{array}
   \quad \begin{array}{c}
   208
   \end{array}
   \]

\[9 - 7 = 2 \quad 9 - 3 = 6 \quad 9 - 4 = 5\]
Lesson 37 Homework

Name ________________________________ Date ________________

Make 5-group drawings and solve. Use the first number sentence to help you write a related number sentence that matches your picture.

1. 2. 3.

\[ 9 - 2 = \_\_\_ \] \[ 9 - 8 = \_\_\_ \] \[ 9 - 4 = \_\_\_ \]
\[ \_\_\_ - \_\_\_ = \_\_\_ \] \[ \_\_\_ - \_\_\_ = \_\_\_ \] \[ \_\_\_ - \_\_\_ = \_\_\_ \]

Subtract. Then write the related subtraction sentence. Make a math drawing if needed and complete a number bond for each.

4. 5. 6.

\[ 9 - 7 = \_\_\_ \] \[ 9 - \_\_\_ = 9 \] \[ 9 - \_\_\_ = 6 \]

\[ \_\_\_ \] \[ \_\_\_ \] \[ \_\_\_ \]

7. 8.

\[ 9 - \_\_\_ = 1 \] \[ \_\_\_ = 9 - 5 \]

\[ \_\_\_ \] \[ \_\_\_ \]
Use 5-group drawings to help you complete the number bond. Match the number bond to the related subtraction sentence. Write the other related subtraction number sentence.

9 - 5 = ___  ___ - ___ = ___

9 - 1 = ____   ___-____ =____

9 - 2 = ____  ___-___= ____

9 - 6= ___  ___ - ____=___

9 -___ = 0  ___-___=___
Lesson 38:
Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

Name ___________________________ Date ________________

Pick a subtraction flashcard. Find the related addition fact on the chart and shade it in. Write the subtraction sentence and a number bond to match. Continue for at least 6 turns.

1 + 9
1 + 8
1 + 7
1 + 6
1 + 5
1 + 4
1 + 3
1 + 2
1 + 1
1 + 0
2 + 0
3 + 0
4 + 0
5 + 0
6 + 0
7 + 0
8 + 0
9 + 0
10 + 0

6 - 4
3 - 1
2 - 2
1 - 3
0 - 4
Directions: On your addition chart shade a square orange. Write the related subtraction fact in a space below with its number bond. Color all the totals orange.

1. _______ - _______ = _______

2. _______ - _______ = _______

3. _______ - _______ = _______

4. _______ = _______ - _______

5. _______ = _______ - _______
Write the related number sentences for the number bonds.

1. 

\[ 10 \quad \square \quad 7 \quad \square \quad 3 \]

\[ \square - \square = \square \]

\[ \square + \square = \square \]

\[ \square = \square \]

\[ \square = \square \]

2. 

\[ 9 \quad \square \quad 6 \quad \square \quad 3 \]

\[ \square - \square = \square \]

\[ \square + \square = \square \]

\[ \square = \square \]

\[ \square = \square \]
Lesson 38: Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

Date: 5/9/13

Find and solve the 7 unshaded addition problems that are doubles and 5-groups.

Make subtraction flashcards for the related subtraction facts. (Remember, doubles will only make 1 related subtraction fact instead of 2 related facts.)

Make a number bond card and use your cards to play memory.

<table>
<thead>
<tr>
<th>1 + 0</th>
<th>1 + 1</th>
<th>1 + 2</th>
<th>1 + 3</th>
<th>1 + 4</th>
<th>1 + 5</th>
<th>1 + 6</th>
<th>1 + 7</th>
<th>1 + 8</th>
<th>1 + 9</th>
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<td>2 + 2</td>
<td>2 + 3</td>
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<td>4 + 3</td>
<td>4 + 4</td>
<td>4 + 5</td>
<td>4 + 6</td>
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<td>5 + 1</td>
<td>5 + 2</td>
<td>5 + 3</td>
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<td>7 + 0</td>
<td>7 + 1</td>
<td>7 + 2</td>
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</table>
Lesson 38: Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

Date: 5/9/13
Lesson 38: Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>9 - 1</td>
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<tr>
<td>5 - 2</td>
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<tr>
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<td>4 - 3</td>
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<tr>
<td>8 - 3</td>
<td>7 - 1</td>
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</table>
Lesson 38:
Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

Date: 5/9/13

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<td>9 - 8</td>
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<td>4 - 1</td>
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<td>7 - 2</td>
</tr>
<tr>
<td>9 - 3</td>
<td>5 - 4</td>
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Lesson 38: Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

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<th>6 - 5</th>
<th>8 - 0</th>
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<td>9 - 2</td>
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<td>8 - 6</td>
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<td>7 - 0</td>
<td>7 - 6</td>
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Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

<table>
<thead>
<tr>
<th>7 - 4</th>
<th>9 - 9</th>
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<td>5 - 1</td>
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<td>2 - 1</td>
<td>5 - 3</td>
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<td>0 - 0</td>
<td>10 - 0</td>
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<td>8 - 1</td>
<td>3 - 3</td>
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<tr>
<td>6 - 3</td>
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</tbody>
</table>
Lesson 38: Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

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<table>
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<tr>
<th>8 - 2</th>
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<td>6 - 1</td>
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<td>6 - 6</td>
<td>10 - 6</td>
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</tbody>
</table>
Lesson 38: Look for and make use of repeated reasoning and structure using the addition chart to solve subtraction problems.

<table>
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<tr>
<th>9 - 6</th>
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<td>2 - 2</td>
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<td>8 - 8</td>
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<tr>
<td>9 - 0</td>
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</tbody>
</table>
Study the addition chart to solve and write related problems.

Pick a subtraction flashcard. Find the related addition fact on the chart and shade it in. Write the subtraction sentence and the shaded addition sentence. Write the other two related facts. Continue for at least 4 turns.
Directions: Choose an expression card and write 4 problems that use the same parts and totals. Shade the totals orange.

1. _____ - _____ = _____  
   _____ + _____ = _____
   _____ = _____

2. _____ - _____ = _____  
   _____ + _____ = _____
   _____ = _____

3. _____ - _____ = _____  
   _____ + _____ = _____
   _____ = _____

4. _____ - _____ = _____  
   _____ + _____ = _____
   _____ = _____
Name _______________________________ Date ______________

Write the related number sentences for the number bonds.

1. \[10 - \underline{8} = \underline{2}\]
   \[\underline{2} + \underline{8} = 10\]

2. \[9 - \underline{7} = \underline{2}\]
   \[\underline{2} + \underline{7} = 9\]

---

Lesson 39:
Analyze the addition chart to create sets of related addition and subtraction facts.

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Lesson 39: Analyze the addition chart to create sets of related addition and subtraction facts.

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Name ___________________________  Date ________________

Solve the unshaded addition problems.

Make a number bond card. Use your cards to play memory.

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Write the two subtraction facts that would have the same number bond on the grid to make subtraction flash cards.
Analyze the addition chart to create sets of related addition and subtraction facts.

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</table>
Lesson 39: Analyze the addition chart to create sets of related addition and subtraction facts.

Date: 5/9/13
1. There were 5 boys at Jake’s party. Some more came after basketball practice. Then there were 9.
   a. Draw a picture to help you solve the problem.
   
   b. Draw a complete number bond that goes with this story.
   
   c. Write an addition sentence to match this story.

____________________________________
2. Write the numbers that go in the blanks.
   a. Color all of the partners to 10 blue.
   b. Color all of the +1 facts yellow.
   c. Color all of the +2 facts red.

   \[
   \begin{array}{ccc}
   3 + 7 = & 1 + 4 = & 3 + 2 = \\
   7 + 2 = & 5 + 1 = & 8 + 1 = \\
   9 + 1 = & 2 + 6 = & 6 + 4 = \\
   \end{array}
   \]

3. Look at the party picture!
   a. Write at least two different addition sentences using 3, 6, and 9 that describe the party picture.

   \[
   \begin{array}{ccc}
   \_ + 3 = & \_ + 6 = & \_ + 9 = \\
   \_ + \_ = & \_ + \_ = & \_ + \_ = \\
   \_ + \_ = & \_ + \_ = & \_ + \_ = \\
   \end{array}
   \]

   b. How are these number sentences the same? Explain using pictures and numbers.
4. Monica says when the unknown is 4, it makes this number sentence true:
   \[5 + 3 = \underline{\phantom{1}} + 4.\] Terry says she is wrong. He says 8 makes the number sentence true.

   a. Who is correct? Explain your thinking using pictures, words, or numbers.

   b. Monica says that 3 and 5 is equal to 5 and 3. Terry says she is wrong again. Explain who is correct, using pictures, numbers, or words.

   c. Next, Monica tells Terry 8 = 8. Terry says she is wrong one more time. Explain who is correct, using pictures, numbers, or words.

   d. Terry decided to share 8 carrot sticks with his friend Monica. Monica put 5 carrot sticks on her plate and some more in her lunch box. How many carrot sticks did Monica put in her lunch box?
Mid-Module Assessment Task

Standards Addressed

| Represent and solve problems involving addition and subtraction. |
| 1.OA.1 | Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. |

Understand and apply properties of operations and the relationship between addition and subtraction.

| 1.OA.3 | Apply properties of operations as strategies to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) |

Add and subtract within 20.

| 1.OA.5 | Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). |
| 1.OA.6 | Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). |

Work with addition and subtraction equations.

| 1.OA.7 | Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2. |
| 1.OA.8 | Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □. |

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 each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student CAN do now, and what they need to work on next.
A Progression Toward Mastery

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<tr>
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<tr>
<td></td>
<td>(1 Point)</td>
<td>(2 Points)</td>
<td>(3 Points)</td>
<td>(4 Points)</td>
</tr>
<tr>
<td>1</td>
<td>1.OA.1 1.OA.5 1.OA.8</td>
<td>The student is unable to represent the problem with pictures or is disorganized with the symbols, digits, and structure and writes an inaccurate number bond and number sentence.</td>
<td>The student draws an incorrect picture with an equation and number bond that may or may not match the incorrect picture.</td>
<td>The student draws and solves the <em>add to with change unknown</em> problem correctly (4 more boys came to the party), but is unable to write an addition equation or number bond to match the problem. Or, the student writes an equation and number bond (using 9, 5, and 4), but cannot explain their thinking using pictures to solve the <em>add to with change unknown</em> problem.</td>
</tr>
<tr>
<td>2</td>
<td>1.OA.6</td>
<td>The student is unable to add as evidenced by unanswered problems. The student colors boxes at random with little understanding of partners to 10, +1, and +2.</td>
<td>The student makes several calculation or category coloring errors. The student makes no accommodation for 9 + 1.</td>
<td>The student answers most addition problems correctly, and makes some category coloring errors (up to 2 calculation or color errors combined.) The student makes no accommodation for 9 + 1, or makes an accommodation for 9 + 1 with calculation or category coloring errors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The student correctly:</td>
</tr>
</tbody>
</table>
|                      |        |        |        |  - Draws a picture to solve the *add to with change unknown* problem and determines that 4 more boys came to the party.  
- Makes a number bond with 9, 5, and 4.  
- Writes an addition equation (9 = 5 + __, 5 + __ = 9, etc.). |
|                      |        |        |        |  - Answers all addition problems.  
- Colors all equations in accordance to the problem type categories.  
- Makes an accommodation for 9 + 1 as it fits two categories. |
### Mid-Module Assessment Task

<table>
<thead>
<tr>
<th>Score</th>
<th>1.OA.3</th>
<th>1.OA.6</th>
<th>1.OA.1</th>
<th>1.OA.3</th>
<th>1.OA.5</th>
<th>1.OA.6</th>
<th>1.OA.7</th>
<th>1.OA.8</th>
</tr>
</thead>
</table>
| 3     | The student writes two incorrect number sentences. Or, the student is disorganized with the symbols, digits, and structure, and writes an inaccurate equation. | The student writes one correct number sentence, and thus cannot explain the similarities between two equations. Or, the student writes two number sentences that are exactly the same as one another, and explains her thinking that does not reflect an understanding of the commutative property. | The student writes two correct and unique addition equations using 3, 6, and 9, but is unable to cite the commutative property in her own words to explain how the equations are same. | The student clearly:  
- Writes two correct and unique addition equations that use 3, 6, and 9 (9 = 6 + 3, or 3 + 6 = 9, or 9 = 3 + 6, etc.).  
- Demonstrates with pictures, numbers, and words how the number sentences are the same, somehow citing the commutative property in her own words. |
| 4     | The student cannot explain any of the three scenarios clearly using equations, pictures, or words. The student cannot solve the take apart with addend unknown problem correctly. | The student explains one of the three scenarios clearly and thoroughly using equations, pictures, or words. The student solves the take apart with addend unknown problem incorrectly (something other than 3 carrots were in her lunch box). | The student explains two of the three scenarios clearly and thoroughly using equations, pictures, and/or words. The student solves the take apart with addend unknown problem correctly and determines that 3 carrots were in her lunch box. | The student clearly and thoroughly:  
- Explains all three scenarios using equations, pictures, and/or words.  
- Solves the take apart with addend unknown problem correctly and determines that 3 carrots were in her lunch box. |
1. There were 5 boys at Jake's party. Some more came after basketball practice. Then there were 9.
   a. Draw a picture to help you solve the problem.
      \[ \begin{array}{c}
      \text{5} \\
      \text{4} \\
      \text{9}
      \end{array} \]
      \[ \text{came} \]
   b. Draw a complete number bond that goes with this story.
      \[ \begin{array}{c}
      \text{9} \\
      \text{5} \\
      \text{4} \\
      \end{array} \]
   c. Write an addition sentence to match this story.
      \[ 5 + 4 = 9 \]
2. Write the numbers that go in the blanks.
   a. Color all of the partners to 10 blue.
   b. Color all of the +1 facts yellow.
   c. Color all of the +2 facts red.

   \[
   \begin{align*}
   3 + 7 &= 10 \\
   5 &= 1 + 4 \\
   3 + 2 &= 5 \\
   9 &= 7 + 2 \\
   5 + 1 &= 6 \\
   9 &= 8 + 1 \\
   9 + 1 &= 10 \\
   8 &= 2 + 6 \\
   6 + 4 &= 10 \\
   \end{align*}
   \]

3. Look at the party picture!

   a. Write at least two different addition sentences using 3, 6, and 9 that describe the party picture.
      \[
      3 + 6 = 9 \\
      6 + 3 = 9 \\
      \]

   b. How are these number sentences the same? Explain using pictures and numbers.
      \[
      \begin{align*}
      3000 + 000000 &= 9 \\
      6000000 + 00003 &= 9 \\
      \end{align*}
      \]
4. Monica says when the unknown is 4, it makes this number sentence true:
   \[5 + 3 = \_ + 4\]. Terry says she is wrong. He says 8 makes the number sentence true.

   a. Who is correct? Explain your thinking using pictures, words, or numbers.

   - Monica is correct. They are the same so she is right.

   - They are the same:
     \[\begin{array}{c}
     \text{5} + \text{3} \\
     \hline
     \text{8}
     \end{array}\]

   b. Monica says that 3 and 5 is equal to 5 and 3. Terry says she is wrong again.
   Explain who is correct, using pictures, numbers or words.

   - Monica is correct. They are the same:
     \[\begin{array}{c}
     \text{3} + \text{5} \\
     \hline
     \text{8}
     \end{array}\]

   c. Next, Monica tells Terry \(8 = 8\). Terry says she is wrong one more time. Explain who is correct, using pictures, numbers, or words.

   - It's true!

   d. Terry decided to share 8 carrot sticks with his friend Monica. Monica put 5 carrot sticks on her plate and some more in her lunch box. How many carrot sticks did Monica put in her lunch box?

   \[\begin{array}{c}
   \text{5} + \text{3} \\
   \hline
   \text{8}
   \end{array}\]

   - 3 carrot sticks
1. There are 9 ducks swimming along in a line. There are 2 grown-up ducks, and the rest are babies. How many of the ducks are babies?
   a. Explain your thinking using pictures, numbers or words.

   b. Write a number sentence that shows how you solved the problem.

2. Jennifer says you can use addition to solve subtraction.
   She says to solve $9 - 6 = \underline{\hspace{1cm}}$, just add $9 + 6$.
   Explain how Jennifer is right and wrong using words, pictures, and numbers.
3. Jeremy is confused about this problem: ___ = 10 - 8. Be his teacher. Write one or more addition number sentences that might help him understand and solve it. Explain to Jeremy using words, pictures, or numbers, too.

4. At the park, there are 6 friends playing baseball. Some more friends come. Now there are 10 friends playing.
   a. How many friends come to play with the first 6 friends? Explain your thinking using a math drawing, numbers, and words.

   b. Write an addition sentence and a subtraction sentence to match the story.
   
   _____________________________  _____________________________

   c. Write the addition sentence you found when solving the problem, and use the same 3 numbers to write 3 more number sentences:
   
   _____________________________  _____________________________
   _____________________________  _____________________________
Lesson

New York State Common Core
End-of-Module Assessment Task

NYS COMMON CORE MATHEMATICS CURRICULUM

Module 1:
Sums and Differences to 10

Date: 5/9/13

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End-of-Module Assessment Task

Standards Addressed

Represent and solve problems involving addition and subtraction.

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

1.OA.3 Apply properties of operations as strategies to add and subtract. Example: If \(8 + 3 = 11\) is known, then \(3 + 8 = 11\) is also known. (Commutative property of addition.) To add \(2 + 6 + 4\), the second two numbers can be added to make a ten, so \(2 + 6 + 4 = 2 + 10 = 12\). (Associative property of addition.)

1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract \(10 - 8\) by finding the number that makes 10 when added to 8.

Add and subtract within 20.

1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).

1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., \(8 + 6 = 8 + 2 + 4 = 10 + 4 = 14\)); decomposing a number leading to a ten (e.g., \(13 - 4 = 13 - 3 - 1 = 10 - 1 = 9\)); using the relationship between addition and subtraction (e.g., knowing that \(8 + 4 = 12\), one knows \(12 - 8 = 4\)); and creating equivalent but easier or known sums (e.g., adding \(6 + 7\) by creating the known equivalent \(6 + 6 + 1 = 12 + 1 = 13\)).

Work with addition and subtraction equations.

1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? \(6 = 6, 7 = 8 - 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2\).

1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations \(8 + ? = 11, 5 = \square - 3, 6 + 6 = \square\).

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 each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student can do now, and what they need to work on next.
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### 1

**1.OA.1, 1.OA.4, 1.OA.6, 1.OA.8**

The student demonstrates a limited ability to both explain his thinking and answer accurately.

The student demonstrates a beginning concept of how to solve an *addend unknown* relationship problem using pictures, words, or numbers by attempting to show her thinking, but provides an inaccurate answer.

The student correctly solves the *addend unknown* relationship problem and writes a corresponding equation, but cannot explain his thinking in pictures, words, or numbers.

Or, the student explains her thinking using pictures, words, or numbers, but is unable to write an accurate equation.

The student correctly:
- Solves the *addend unknown* relationship problem and determines that 7 ducks are babies.
- Explains thinking by drawing a picture, writing numbers or equations, or words.
- Writes an equation that corresponds with her solution process (addition or subtraction).

### 2

**1.OA.4, 1.OA.5, 1.OA.7, 1.OA.8**

The student shows little evidence of understanding how addition and subtraction differ, or is unable to complete the task.

The student shows evidence of beginning to understand how addition and subtraction differ through his explanation, but demonstrates incomplete reasoning and/or an incorrect answer.

The student identifies that Jennifer is incorrect, but cannot fully support the claim or explain his thinking clearly.

The student correctly identifies that Jennifer is correct that addition can be used to solve a subtraction problem, and that she is incorrect in adding 9 and 6 to solve 9 – 6. The student shows her thinking using words, pictures, or numbers.
### A Progression Toward Mastery

| 3 | The student demonstrates little to no concept of the connection between addition and subtraction, and is unable to explain her thinking. | The student demonstrates a beginning understanding of the connection between addition and subtraction, but does not answer accurately. | The student correctly writes two accurate equations using 8, 2, and 10, but is unable to explain her thinking. Or, the student is able to explain her thinking, somehow citing the connection between addition and subtraction, but is unable to write two accurate equations. | The student correctly:  
- Writes two accurate addition equations using 8, 2, and 10.  
- Explains her thinking using pictures, numbers, or words, and cites the connection between addition and subtraction in her explanation. |
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| 4 | The student shows very little understanding of how to solve the *add to with change unknown* problem, and cannot write corresponding equations. | The student shows a beginning understanding of how to solve the *add to with change unknown* problem, but lacks reasoning or equation writing skills. | The student correctly answers the *add to with change unknown* problem (4 friends came to play), writes accurate addition and subtraction equations, including those that demonstrate an understanding of the commutative property, but is unable to explain his thinking. Or, the student writes addition and subtraction equations correctly and clearly explains his thinking but does not answer accurately (something other than 4 friends came to play). Or, the student solves the problem (4 friends came to play) and explains thinking clearly but does not write all addition and subtraction sentences accurately. | The student clearly:  
- Solves the *add to with change unknown* problem and determines that 4 friends came to play, and explains his thinking.  
- Writes addition and subtraction equations which correspond to the problem.  
- Applies the commutative property and knowledge of the equal sign to write three additional equations (10 = 6 + 4; 4 + 6 = 10; 10 – 4 = 6; etc.). |
| 1.OA.1 | 1.OA.3 | 1.OA.4 | 1.OA.6 | 1.OA.7 | 1.OA.8 | 1.OA.5 |
Lesson

New York State Common Core
End-of-Module Assessment Task

NYS COMMON CORE MATHEMATICS CURRICULUM

Module 1: Sums and Differences to 10
Date: 5/9/13

1. Maria

1) There are 9 ducks swimming along in a line. There are 2 grown-up ducks, and the rest are babies. How many of the ducks are babies?

   a) Explain your thinking using pictures, numbers and words!

      ![Picture of 9 ducks with 2 grown-ups and 7 babies]

      \[2 + 7 = 9\]

   b) Write a number sentence that shows how you solved the problem.

      \[2 + 7 = 9\]  \[2 + \_ = 9\]

2) Jennifer says you can use addition to solve subtraction.

   She says to solve \(9 - 6 = \_\), just add \(9 + 6\).

   Explain how Jennifer is right and wrong using words, pictures and numbers.

   ![Picture of three problems: 3+_, 5-3=2, 3+8 is not right]
3) Jeremy is confused about this problem: \[ \_ = 10 - 8. \]

Be his teacher. Write one or more addition number sentences or number bonds that might help him understand and solve it. Explain to Jeremy using words, pictures or numbers, too.

\[ 10 - 6 = \_ \]

is the same
\[ 8 + \square = 10 \]

4) At the park, there are 6 friends playing baseball. Some more friends come. Now there are 10 friends playing.

a) How many friends come to play with the first 6 friends? Explain your thinking using a math drawing, numbers and words!

\[ \begin{array}{cccccc}
\hline
& & & & & \\
\hline
\hline
x & x & x & \text{come} & \hline
6 & + & 4 & = & 10
\end{array} \]

b) Write an addition sentence and a subtraction sentence to match the story.

\[ 6 + 4 = 10 \quad 10 - 6 = 4 \]

c) Write the addition sentence you found when solving the problem, and use the same 3 numbers to write 3 more number sentences:

\[ 6 + 4 = 10 \]
\[ 10 = 6 + 4 \]
\[ 4 + 6 = 10 \]
\[ 10 = 4 + 6 \]
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