Name _Master Key_   Date _____

1. Complete each more or less statement.

   a. 1 more than 37 is __38__.   b. 10 more than 37 is __47__.

   c. 1 less than 37 is __36__.   d. 10 less than 37 is __27__.

   e. 58 is 10 more than __48__.   f. 29 is 1 less than __30__.

   g. __35__ is 10 less than 45.   h. __39__ is 1 more than 38.

   i. 49 is __1 less__ than 50.   j. 32 is __10 more__ than 22.

2. Complete each pattern and write the rule.

   a. 44, 45, __46__, __47__, 48   Rule: __+ 1__

   b. 44, __34__, 24, __14__, 4   Rule: __−10__

   c. 44, __54__, __64__, 74, 84   Rule: __+ 10__

   d. __44__, 43, 42, __41__, 40   Rule: __−1__

   e. __64__, __54__, 44, 34, __24__   Rule: __− 10__

   f. 41, __40__, __39__, 38, 37   Rule: __− 1__

| **Lesson 1:** Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10.   3

3. Label each statement as true or false.

a. 1 more than 36 is the same as 1 less than 38. __True__

b. 10 less than 47 is the same as 1 more than 35. __True__

c. 10 less than 89 is the same as 1 less than 90. __False__

d. 10 more than 41 is the same as 1 less than 43. __False__

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

Color of Balloons	Number of Balloons
Red	59
Yellow	61
Green	65
Blue	60
Pink	51

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

Are there more blue or pink balloons?

Blue   60 is greater than 51

b. If 1 red balloon pops and 10 red balloons fly away, how many red balloons are left? Use the arrow way to show your work.

$$59 \xrightarrow{-1} 58 \xrightarrow{-10} 48$$

48 are left

EUREKA MATH

Lesson 1: Relate 1 more, 1 less, 10 more, and 10 less to addition and subtraction of 1 and 10.

4

Name _____   Date _____

1. 'Solve using place value strategies. Use scrap paper to show the arrow way or number bonds, or just use mental math and record your answers.

| a. 2 tens + 3 tens = __5__ tens
 20 + 30 = __50__

 2 tens 4 ones + 3 tens = __5__ tens __4__ ones
 24 + 30 = __54__ | b. 5 tens + 4 tens = __9__ tens
 50 + 40 = __90__

 5 tens 9 ones + 4 tens = __9__ tens __9__ ones
 59 + 40 = __99__ |

c. 28 + 40 = __68__   18 + 30 = __48__   60 + 38 = __98__

d. 30 + 25 = __55__   35 + 50 = __85__   15 + 20 = __35__

e. 37 + __10__ = 47   __30__ + 27 = 57   17 + __70__ = 87

f. __40__ + 22 = 62   29 + __50__ = 79   11 + __80__ = 91

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

a. 23 + 40 __>__ 20 + 33

b. 50 + 18 __=__ 48 + 20

c. 19 + 60 __>__ 39 + 30

d. 64 + 10 __>__ 49 + 20

e. 70 + 21 __<__ 18 + 80

f. 35 + 50 __<__ 26 + 60

3. Solve using place value strategies.

a. 6 tens – 2 tens = $\underline{4}$ tens 60 – 20 = $\underline{40}$	b. 8 tens – 5 tens = $\underline{3}$ tens 80 – 50 = $\underline{30}$
6 tens 3 ones – 3 tens = $\underline{3}$ tens $\underline{3}$ ones 63 – 30 = $\underline{33}$	8 tens 9 ones – 5 tens = $\underline{3}$ tens $\underline{9}$ ones 89 – 50 = $\underline{39}$

c. 55 – 20 = $\underline{35}$ 75 – 30 = $\underline{45}$ 85 – 50 = $\underline{35}$

d. 72 – $\underline{50}$ = 22   49 – $\underline{30}$ = 19   88 – $\underline{60}$ = 28

e. 67 – $\underline{20}$ = 47   71 – $\underline{20}$ = 51   99 – $\underline{30}$ = 69

4. Complete each more than or less than statement.

a. 20 less than 58 is $\underline{38}$.

b. 36 more than 40 is $\underline{76}$.

c. 40 less than $\underline{68}$ is 28.

d. 50 more than $\underline{14}$ is 64.

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

$$40 + \underline{?} = 68$$

$$40 \xrightarrow{+10} 50 \xrightarrow{+10} 60 \xrightarrow{+8} 68$$

$$10 + 10 + 8 = \boxed{28}$$

28 plates were added

Name _____ Date _____

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

a.	b.
67 + 20 = _87_	56 + 40 = _96_
$67 \xrightarrow{+20} 87$	$56 \xrightarrow{+40} 96$
67 + 21 = _88_	56 + 41 = _97_
$67 \xrightarrow{+20} 87 \xrightarrow{+1} 88$	$56 \xrightarrow{+40} 96 \xrightarrow{+1} 97$
67 + 19 = _86_	56 + 39 = _95_
$67 \xrightarrow{+20} 87 \xrightarrow{-1} 86$	$56 \xrightarrow{+40} 96 \xrightarrow{-1} 95$
c.	d.
68 - 40 = _28_	87 - 50 = _37_
$68 \xrightarrow{-40} 28$	$87 \xrightarrow{-50} 37$
68 - 41 = _27_	87 - 51 = _36_
$68 \xrightarrow{-40} 28 \xrightarrow{-1} 27$	$87 \xrightarrow{-50} 37 \xrightarrow{-1} 36$
68 - 39 = _29_	87 - 49 = _38_
$68 \xrightarrow{-40} 28 \xrightarrow{+1} 29$	$87 \xrightarrow{-50} 37 \xrightarrow{+1} 38$

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MATH

Lesson 3:   Add and subtract multiples of 10 and some ones within 100.

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2. Solve using the arrow way, number bonds, or mental math. Use scrap paper if needed.

a.	b.	c.
48 – 20 = _28_	86 – 50 = _36_	37 + 40 = _77_
48 – 21 = _27_	86 – 51 = _35_	37 + 41 = _78_
48 – 19 = _29_	86 – 49 = _37_	37 + 39 = _76_
d.	e.	f.
62 + 30 = _92_	77 – 40 = _37_	28 + 50 = _78_
62 + 31 = _93_	77 – 41 = _36_	28 + 51 = _79_
62 + 29 = _91_	77 – 39 = _38_	28 + 49 = _77_

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

$$84 - 39 = \underline{45}$$ she has $45.00

$$84 \xrightarrow{-40} 44 \xrightarrow{+1} 45$$

4. Brian has 92 cm of rope. He cuts off a piece 49 cm long to tie a package.

   a. How much rope does Brian have left?

   $$92 - 49 = \underline{43}$$ 43 cm left

   $$92 \xrightarrow{-50} 42 \xrightarrow{+1} 43$$

   b. To tie a different package, Brian needs another piece of rope that is 8 cm shorter than the piece he just cut. Does he have enough rope left?
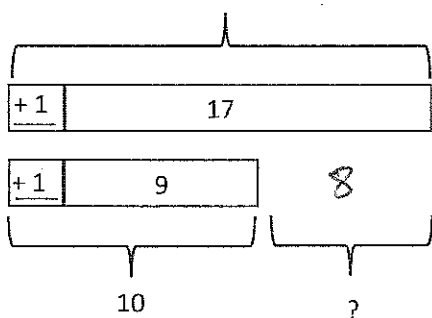
   $$49 - 8 = \underline{41} \, cm$$
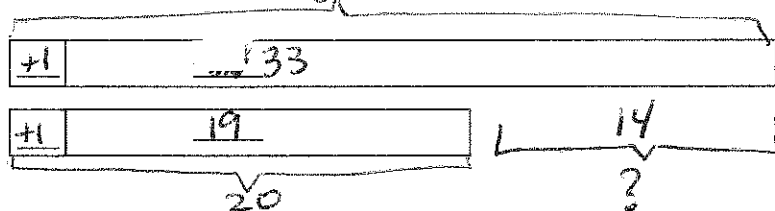
   43 > 41   so yes, he has enough rope

Name _____ Date _____

1. Solve. Draw and label a tape diagram to subtract 10, 20, 30, 40, etc.

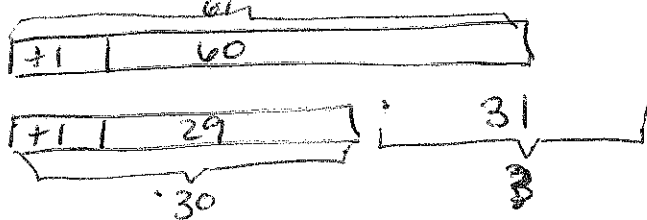a. 17 - 9 = ___18 - 10___ = ___8___

```
           18
        ┌──────┴──────┐
   ┌──┬──────────────────┐
   │+1│       17         │
   └──┴──────────────────┘
   ┌──┬──────────┐      ┌──────┐
   │+1│    9     │      │  8   │
   └──┴──────────┘      └──────┘
   └──────┬──────┘       └──┬──┘
         10                  ?
```
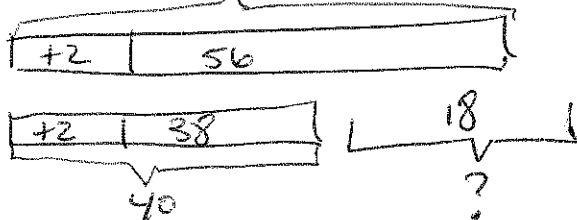
b. 33 - 19 = ___34·20___ = ___14___

```
              34
   ┌──┬─────────────────────────────┐
   │+1│        __·33                 │
   └──┴─────────────────────────────┘
   ┌──┬─────────────┐     ┌────14────┐
   │+1│     19      │     │          │
   └──┴─────────────┘
         20                   ?
```

c. 60 - 29 = ___61 - 30___ = ___31___

```
           61
   ┌──┬──────────────┐
   │+1│     60       │
   └──┴──────────────┘
   ┌──┬──────────────┐    ┌───31───┐
   │+1│     29       │    │        │
   └──┴──────────────┘
         30                   3
```

d. 56 - 38 = ___58 - 40___ = ___18___

```
          58
   ┌──┬──────────┐
   │+2│    56    │
   └──┴──────────┘
   ┌──┬──────────┐    ┌───18───┐
   │+2│    38    │    │        │
   └──┴──────────┘
         40             ?
```

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Lesson 4: Add and subtract multiples of 10 and some ones within 100.

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2. Solve. Draw a number bond to add 10, 20, 30, 40, etc.

a. 28 + 43 = ___30 + 41___ = __71__

30 / 2 41

b. 49 + 26 = __50 + 25__ = __75__

50 / 1 25

c. 43 + 19 = __42 + 20__ = __62__

42 / 1 / 20
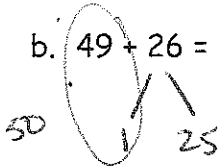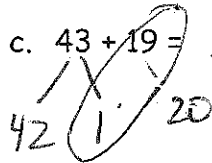
d. 67 + 28 = __70 + 25__ = __95__

70 / 3 25
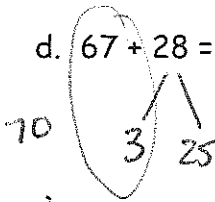
3. Kylie has 28 more oranges than Cynthia. Kylie has 63 oranges. How many oranges does Cynthia have? Draw a tape diagram or number bond to solve.

63 - 28 = __65 - 30__ = __35__

65

| +2 | 63 |

| +2 | 28 | | 35 |

30   ?
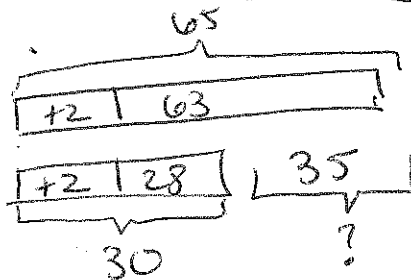
Cynthia has 35 oranges

Name _____   Date _____

Solve and show your strategy.

1. 38 markers were in the bin. Chase added the 43 markers that were on the floor to the bin. How many markers are in the bin now?
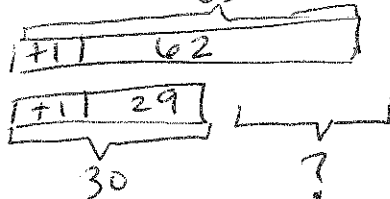
$$38 + 43 = \underline{81}$$

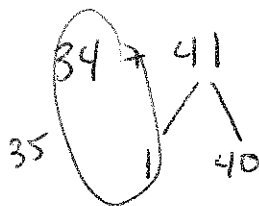$$38 \xrightarrow{+40} 78 \xrightarrow{+3} 81$$

81 markers

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

$$62 - 29 = \underline{63-30} = 33$$

33 big stickers

3. Rose has 34 photos in a photo album and 41 photos in a box. How many photos does Rose have?

$$34 + 41$$

$$35 + 40 = 75$$

75 photos

EUREKA MATH | Lesson 5:   Solve one- and two-step word problems within 100 using strategies based on place value.

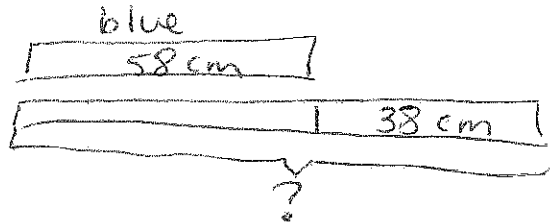© 2014 Common Core, Inc. All rights reserved. commoncore.org

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4. Halle has two ribbons. The blue ribbon is 58 cm. The green ribbon is 38 cm longer than the blue ribbon.
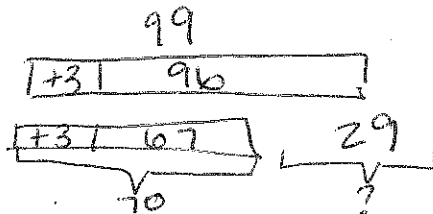
   a. How long is the green ribbon?

   $58 + 38 = 60 + 36 = 96$

   60   2   36

   96 cm

   blue
   58 cm
   38 cm
   ?

   b. Halle uses 67 cm of green ribbon to wrap a present. How much green ribbon is left?

   $96 \text{ cm} - 67 \text{ cm} = \underline{99 - 70} = \underline{29}$

   99
   +3   96
   +3   67   29
   70   ?

5. Chad bought a shirt for $19 and a pair of shoes for $28 more than the shirt.

   a. How much was the pair of shoes?

   $19 + 28 = \underline{20 + 27} = \$47 \text{ for the shoes}$

   20   1   27

   b. How much money did Chad spend on the shirt and shoes?

   $19 + 47 = 20 + 46 = \$66 \text{ total}$

   20   1   46

   c. If Chad had $13 left over, how much money did Chad have before buying the shirt and shoes?

   Fact Family!

   $\underline{?} - 66 = 13$

   $66 + 13 = \$79$

   $66 \xrightarrow{+10} 76 \xrightarrow{+3} 79$

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Lesson 5: Solve one- and two-step word problems within 100 using strategies based on place value.

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Name _____ Date _____

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

   a. 4 + 9 = _13_   30 + 9 = _39_   34 + 9 = _43_   34 + 49 = _83_

   b. 6 + 8 = _14_   20 + 8 = _28_   26 + 8 = _34_   26 + 58 = _84_

2. Solve the following problems using your place value chart and place value disks. Compose a ten, if needed. Think about which ones you can solve mentally, too!

   a. 21 + 9 = _30_   22 + 9 = _31_

   b. 28 + 2 = _30_   28 + 4 = _32_

   c. 32 + 16 = _48_   34 + 17 = _51_

   d. 47 + 23 = _70_   47 + 25 = _72_

   e. 53 + 35 = _88_   58 + 35 = _93_

   f. 58 + 42 = _100_   58 + 45 = _103_

   g. 69 + 32 = _101_   36 + 62 = _98_

   h. 77 + 13 = _90_   16 + 77 = _93_

   i. 59 + 34 = _93_   31 + 58 = _89_

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

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Solve using a place value chart.

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

$$49 + 36 = 85$$

$$49 \xrightarrow{+30} 79 \xrightarrow{+6} 85$$

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

$$67 + 26 = 93$$

$$67 \xrightarrow{+20} 87 \xrightarrow{+6} 93$$

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

$$25 + 38 = 63$$

$$25 \xrightarrow{+30} 55 \xrightarrow{+8} 63$$

EUREKA MATH

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

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Name _____   Date _____

1. Solve the following problems using the vertical form, your place value chart, and place value disks. Bundle a ten, if needed. Think about which ones you can solve mentally, too!
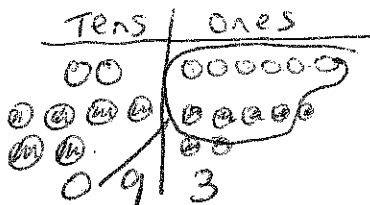
a. $31 + 9 = 40$ $32 + 8 = 40$

b. $42 + 18$

```
  4|2
+ 1|8
-----
  6|0
```

$43 + 17$

```
  4|3
+ 1|7
-----
  6|0
```

c. $26 + 67 = 93$

Tens	Ones
OO	OOOOOO

0 9 3

$28 + 65$

Tens	Ones
OO	OOOOO / OOO

9 3
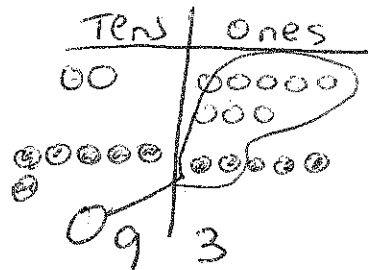
2. Add the bottom numbers to find the missing number above it.

41
  23   18

$20 + 10 = 30$
$3 + 8 = 11$
$30 + 11 = 41$

52
  29   23

```
  2|9
+ 2|3
-----
  5|2
```

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Lesson 7:   Relate addition using manipulatives to a written vertical method.

29
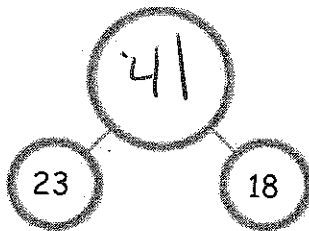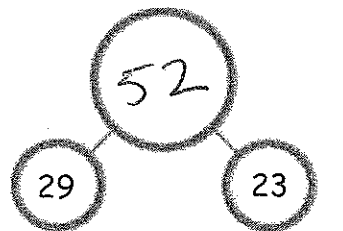
3. Jahsir counted 63 flowers by the door and 28 flowers on the windowsill. How many flowers were by the door and on the windowsill?

$$
\begin{array}{r}
6\,3 \\
+\,2\,8 \\
\hline
9\ \ 1
\end{array}
$$

91 flowers

4. Antonio's string is 38 centimeters longer than his reading book. The length of his reading book is 26 centimeters.

a. What is the length of Antonio's string?

26 cm + 38 cm = 30+34 = 64cm long

30   4   34

b. The length of Antonio's reading book is 20 centimeters shorter than the length of his desk. How long is Antonio's desk?

Fact Family!

? - 20 = 26

26 + 20 = 46 cm.
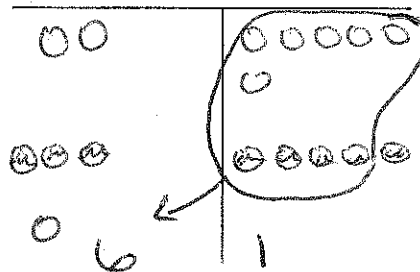
Name _____   Date _____

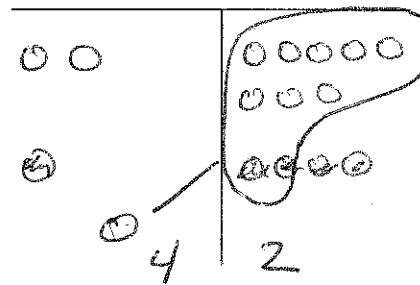1. Solve vertically. Draw and bundle place value disks on the place value chart.

a. 26 + 35 = __61__

$$\begin{array}{r} \overset{1}{2}6 \\ +\ 35 \\ \hline 6\ 1 \end{array}$$
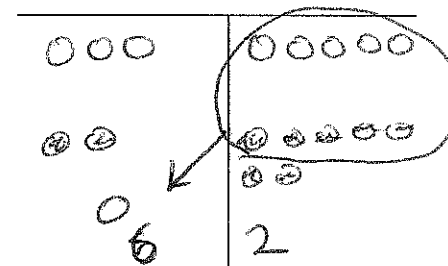
b. 28 + 14 = __42__

$$\begin{array}{r} \overset{1}{2}8 \\ +\ 14 \\ \hline 4\ 2 \end{array}$$

c. 35 + 27 = __62__

$$\begin{array}{r} \overset{1}{3}5 \\ +\ 27 \\ \hline 6\ 2 \end{array}$$

d. 23 + 46 = __69__

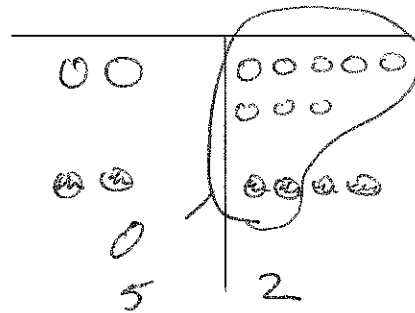$$\begin{array}{r} 2\ 3 \\ +\ 46 \\ \hline 6\ 9 \end{array}$$

Lesson 8: Use math drawings to represent the composition and relate drawings to a written method.
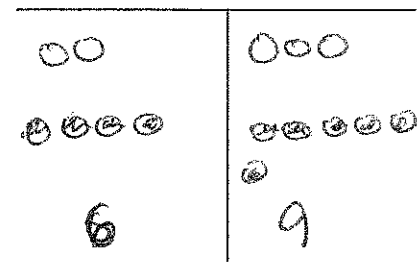
e. 32 + 59 = ___91___

$$\begin{array}{r} 3\!\!\overset{1}{}2 \\ +\ 59 \\ \hline 91 \end{array}$$
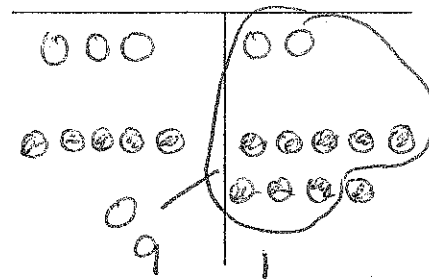
2. Twenty-eight second-grade students went on a field trip to the zoo. The other 24 second-grade students stayed at school. How many second grade students are there?

$$\begin{array}{r} \overset{1}{2}8 \\ +\ 24 \\ \hline 52 \end{array}$$

3. Alice cut a 27 cm piece of ribbon and had 39 cm of ribbon left over. How much ribbon did Alice have at first?

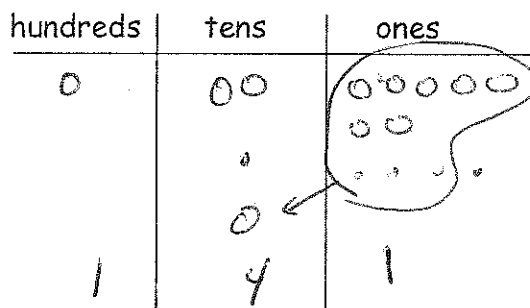$$\begin{array}{r} \overset{1}{2}7 \\ +\ 39 \\ \hline 66 \end{array}$$
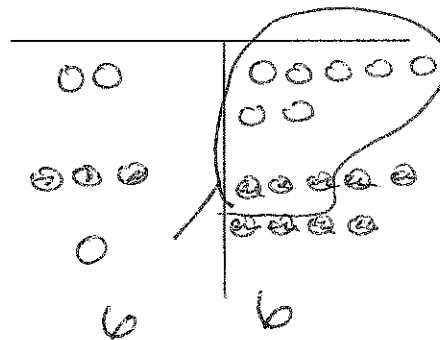
Name _____   Date _____

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

a. 127 + 14 = ___141___

$$\begin{array}{r} 1\ 2\ 7 \\ +\ \ 1\ 4 \\ \hline 1\ 4\ 1 \end{array}$$

hundreds	tens	ones
0	0 0	(0 0 0 0 0 / 0 0)
	0	
	0	
1	4	1

b. 135 + 46 = ___181___

$$\begin{array}{r} 1\ 3\ 5 \\ +\ \ 4\ 6 \\ \hline 1\ 8\ 1 \end{array}$$

hundreds	tens	ones
0	0 0 0	(0 0 0 0 0)
	0	
1	8	1
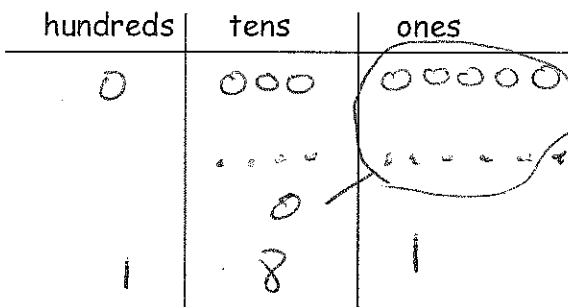
c. 108 + 37 = ___145___

$$\begin{array}{r} 1\ 0\ 8 \\ +\ \ 3\ 7 \\ \hline 1\ 4\ 5 \end{array}$$

hundreds	tens	ones
0		(0 0 0 0 0 / 0 0 0)
	0	
1	4	5

EUREKA MATH | Lesson 9:   Use math drawings to represent the composition when adding a two-digit to a three digit addend   37

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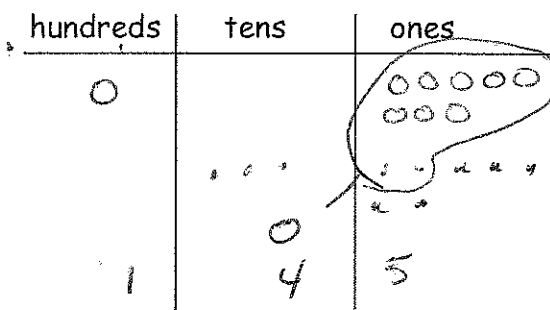
2. Solve using the algorithm. Write a number sentence for the problem modeled on the place value chart.

$148 + 26 = 174$
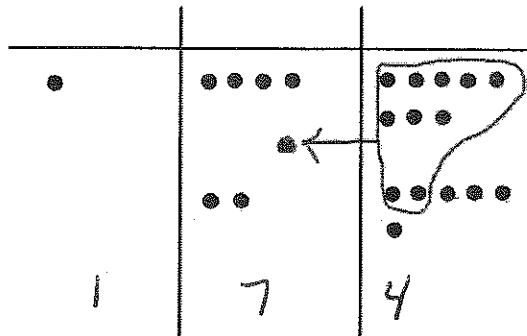
3. Jane made 48 lemon bars and 23 cookies.

   a. How many lemon bars and cookies did Jane make?

   $48 + 23 = 71$

hundreds	tens	ones

   b. Jane made 19 more lemon bars. How many lemon bars does she have?

   $71 + 19 = 90$

hundreds	tens	ones

Name _____   Date _____

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

a. 125 + 17 = __142__
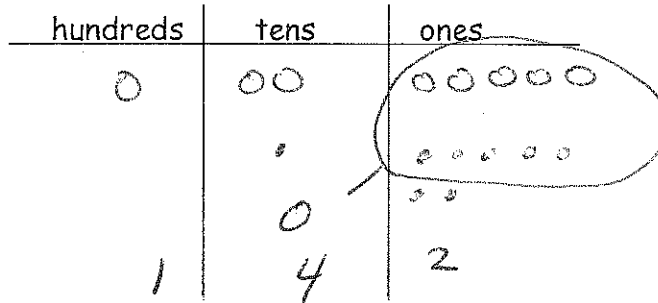
```
   1 2 5
+    1 7
-------
   1 4 2
```
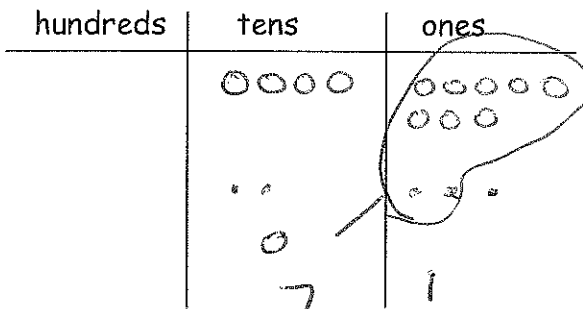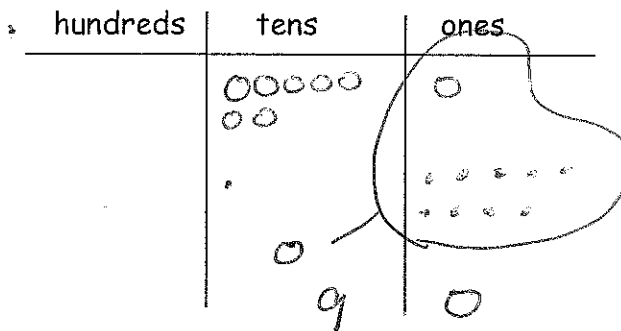
hundreds	tens	ones
O	OO	OOOOO circled
		o o o o o
	O	
1	4	2

b. 148 + 14 = __162__

```
   1 4 8
+    1 4
-------
   1 6 2
```

hundreds	tens	ones
O	O OOO	OOOOOO circled
		O O O
	o	o o o
	O	
	6	
1		2

c. 107 + 56 = __163__

```
   1 0 7
+    5 6
-------
   1 6 3
```

hundreds	tens	ones
O		OOOOO circled
		O O
	o o o o o	o o o o
	O	o
1	6	3

d. 38 + 149 = __187__

```
    3 8
+ 1 4 9
-------
  1 8 7
```

hundreds	tens	ones
	OOO	OOOOO circled
		OOO
o	o o o o	o o o o o
	O	o o o o
1	8	7
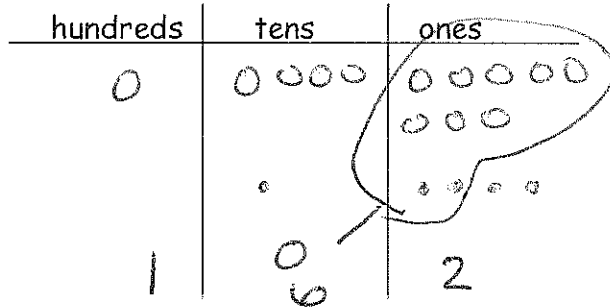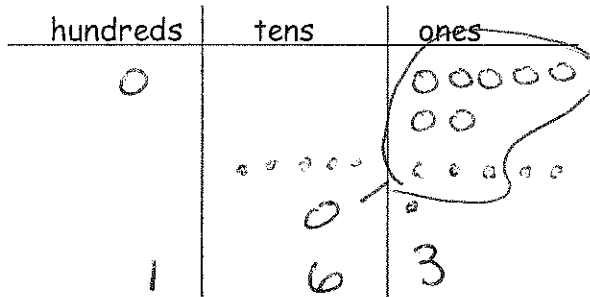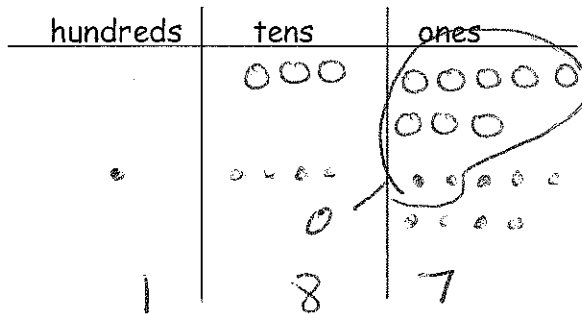
2. Jamie started to solve this problem when she accidently dropped paint on her sheet. Can you figure out what problem she was given and her answer by looking at her work?

100's	10's	1's

1 ⬛ = _192_

$158 + 34 = 192$

_1_ hundreds   _9_ tens   _2_ ones
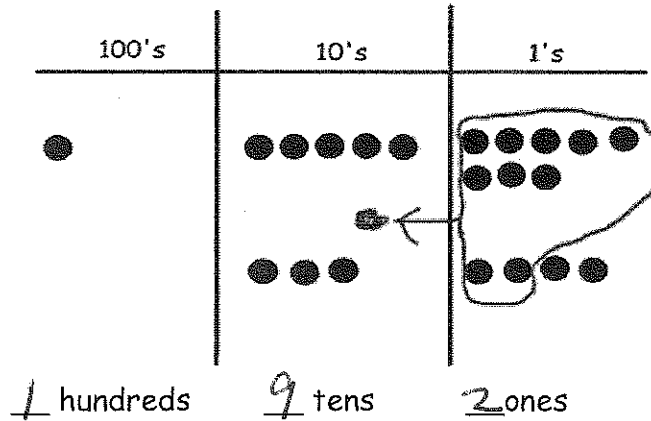
3. a. In the morning, Mateo borrowed 4 bundles of ten markers and 17 loose markers from the art teacher. How many markers did Mateo borrow?

57 markers

hundreds	tens	ones
	0000	
	5	7
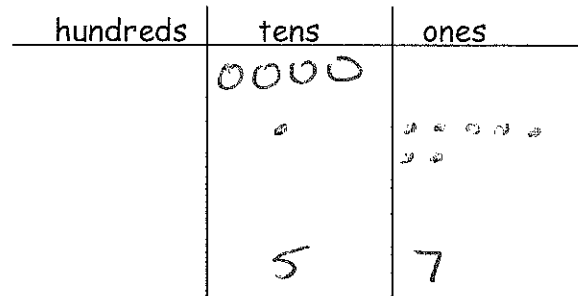
b. In the afternoon, Mateo borrowed 2 bundles of ten crayons and 15 loose crayons. How many markers and crayons did Mateo borrow in all?

92 total

hundreds	tens	ones
	00000	00000
		0 0
	9	2

EUREKA
MATH

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

42

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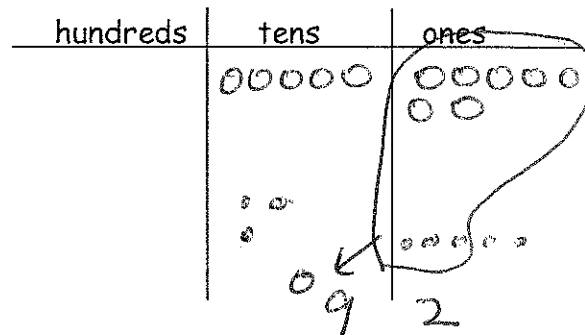
Name _____ Date _____

1. 'Solve using mental math.

a. 6 – 5 = __1__   26 – 5 = __21__   26 – 6 = __20__   26 – 7 = __19__

b. 8 – 7 = __1__   58 – 7 = __51__   58 – 8 = __50__   58 – 9 = __49__

2. Solve using your place value chart and place value disks. Unbundle a ten, if needed. Think about which problems you can solve mentally, too!

a. 36 – 5 = __31__   36 – 7 = __29__

b. 37 – 6 = __31__   37 – 8 = __29__

c. 40 – 5 = __35__   41 – 5 = __36__

d. 58 – 32 = __26__   58 – 29 = __29__

e. 60 – 26 = __34__   62 – 26 = __36__

f. 70 – 41 = __29__   80 – 41 = __39__

EUREKA
MATH

Lesson 11:   Represent subtraction with and without the decomposition
             of 1 ten as 10 ones with manipulatives.

45
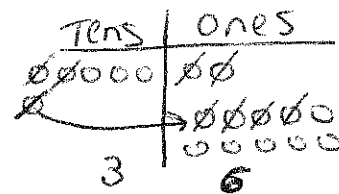
3. Solve, and explain your strategy.

a.		
41 – 27 = __14__		I had to unbundle a group of ten. Then I could subtract 7 from 11 and then 20 from 30.
b.		
67 – 28 = __39__		I unbundled a group of 10. Then I subtract 8 ones and 2 tens.

4. The number of marbles in each jar is marked on the front. Miss Clark took 37 marbles out of each jar. How many marbles are left in each jar? Complete the number sentence to find out.
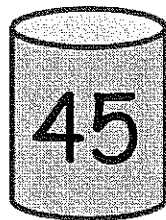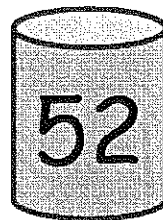
a. __45__ - __37__ = __8__   b. __52__ - __37__ = __15__

c. __48__ - __37__ = __11__   d. __55__ - __37__ = __18__

EUREKA MATH   Lesson 11:   Represent subtraction with and without the decomposition of 1 ten as 10 ones with manipulatives.   46

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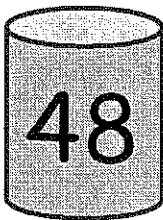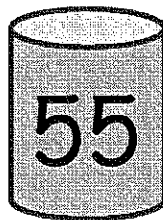
Name _____   Date _____

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

a.   34 – 18

$$\begin{array}{r} \overset{2\ 14}{\cancel{34}} \\ -\ 18 \\ \hline 16 \end{array}$$

b.   41 – 16

$$\begin{array}{r} {}^{3}\cancel{4}\ \cancel{1}^{\,11} \\ -\ 1\,6 \\ \hline 2\ \ 5 \end{array}$$

c.   33 – 15

$$\begin{array}{r} {}^{2}\cancel{3}\ \cancel{3}^{\,13} \\ -\ 1\ 5 \\ \hline 1\ 8 \end{array}$$

d.   46 – 18

$$\begin{array}{r} {}^{3}\cancel{4}\ \cancel{6}^{\,16} \\ -\ 1\ 8 \\ \hline 2\ 8 \end{array}$$

e.   62 – 27

$$\begin{array}{r} {}^{5}\cancel{6}\ \cancel{2}^{\,12} \\ -\ 2\ 7 \\ \hline 3\ 5 \end{array}$$

f.   81 – 34

$$\begin{array}{r} {}^{7}\cancel{8}\ \cancel{1}^{\,11} \\ -\ 3\ 4 \\ \hline 4\ 7 \end{array}$$

2. Some first- and second-grade students voted on their favorite drink. The table shows the number of votes for each drink.

Types of Drink	Number of Votes
Milk	28
Apple Juice	19
Grape Juice	16
Fruit Punch	37
Orange Juice	44

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

$$37 - 28 = 9$$

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

c. How many fewer students voted for apple juice than for milk? Show your work.

EUREKA MATH   Lesson 12:   Relate manipulative representations to a written method.

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50

Name _____   Date _____

1. 'Solve vertically. Use the place value chart and chips to model each problem. Show how you change 1 ten for 10 ones, when necessary. The first one has been started for you.

a.

42 – 26 = __16__

$$\begin{array}{c|c} 3\;\overset{\scriptstyle3}{\cancel{4}} & \overset{\scriptstyle12}{\cancel{2}} \\ -\;2 & 6 \\ \hline 1 & 6 \end{array}$$

100's	10's	1's

1   6

b.

54 – 28 = _____

$$\begin{array}{c|c} 4\;\overset{\scriptstyle4}{\cancel{5}} & \overset{\scriptstyle14}{\cancel{4}} \\ -\;2 & 8 \\ \hline 2 & 6 \end{array}$$

100's	10's	1's

2   6

c.

60 – 17 = _____

$$\begin{array}{c|c} 5\;\overset{\scriptstyle5}{\cancel{6}} & \overset{\scriptstyle10}{\cancel{0}} \\ -\;1 & 7 \\ \hline 4 & 3 \end{array}$$

100's	10's	1's

4   3

EUREKA MATH | Lesson 13:   Use math drawings to represent subtraction with and without decomposition and relate drawings to a written method   51

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2. Solve vertically. Draw a place value chart and chips to model each problem. Show how you change 1 ten for 10 ones, when necessary.

a. 31 – 19 = _____

b. 47 – 24 = _____

c. 51 – 39 = _____

d. 67 – 44 = _____

e. 76 – 54 = _____

f. 82 – 59 = _____

EUREKA MATH

Lesson 13: Use math drawings to represent subtraction with and without decomposition and relate drawings to a written method

52

Name _____   Date _____

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

a. 156 – 42 = __114__

```
  1 5 6
-   4 2
---------
  1 1 4
```

hundreds	tens	ones
O	∅∅∅∅O	∅∅OOO O
1	1	4

b. 150 – 36 = __114__

```
    4 10
  1 5 0
-   3 6
---------
  1 1 4
```

hundreds	tens	ones
O	∅∅∅O∅ →	∅∅∅∅∅ ∅OOOO
1	1	4

c. 163 – 45 = __118__

```
    5 13
  1 6 3
-   4 5
---------
  1 1 8
```

hundreds	tens	ones
O	∅∅∅∅O ∅ →	∅∅∅ ∅∅OOO OOOOO
1	1	8

EUREKA MATH | Lesson 14:   Represent subtraction with and without the decomposition when there is a three-digit minuend   55

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

a.	b.
$\begin{array}{r} 1\,\overset{2}{\cancel{3}}\,\overset{14}{\cancel{4}} \\ -\quad 2\ 9 \\ \hline 1\ 0\ 5 \end{array}$	$\begin{array}{r} 1\,\overset{4}{\cancel{5}}\,\overset{14}{\cancel{4}} \\ -\quad 3\ 7 \\ \hline 1\ 1\ 7 \end{array}$

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

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

$\begin{array}{r} 1\,\overset{5}{\cancel{6}}\,\overset{15}{\cancel{5}} \\ -\quad 2\ 8 \\ \hline 1\ 3\ 7 \end{array}$

Ralph has 137 shells

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

Aniyah $\begin{array}{r} 1\,\overset{5}{\cancel{6}}\,\overset{15}{\cancel{5}} \\ -\quad 1\ 9 \\ \hline 1\ 4\ 6 \end{array}$

Ralph $\begin{array}{r} 1\,\overset{2}{\cancel{8}}\,\overset{17}{\cancel{7}} \\ -\quad 1\ 9 \\ \hline 1\ 1\ 8 \end{array}$

Name _____   Date _____

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

a. 153 – 31

hundreds	tens	ones
0	⌀⌀⌀OO	⌀OO
1	2	2

b. 153 – 38

hundreds	tens	ones
0	⌀⌀⌀O⌀	⌀⌀⌀ ⌀⌀⌀⌀⌀ OOOOO
1	1	5

c. 160 – 37

hundreds	tens	ones
0	⌀⌀⌀OO ⌀	⌀⌀⌀⌀⌀ ⌀⌀OOO
1	2	3

d. 182 - 59

$$\begin{array}{r} 1\,\overset{7}{8}\,\overset{12}{\cancel{2}} \\ -\ 5\ 9 \\ \hline 1\ 2\ 3 \end{array}$$

hundreds	tens	ones
0	𝓞𝓞𝓞𝓞 𝓞OO	𝓞𝓞
		𝓞𝓞𝓞𝓞𝓞 𝓞𝓞OO
1	2	3

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

$$\begin{array}{r} \overset{5}{1}\overset{16}{\cancel{6}}\cancel{6} \\ -\ 4\ 8 \\ \hline 1\ 0\ 8 \end{array}$$

100's	10's	1's
•	• • • • •	𝄍 𝄍 𝄍 𝄍
		• • • • •

a. Lisa correctly __unbundled the ten and subtracted the 8 ones from the 16.__

b. Lisa needs to fix __her subtraction of tens. 5 tens – 4 tens is 1 ten.__