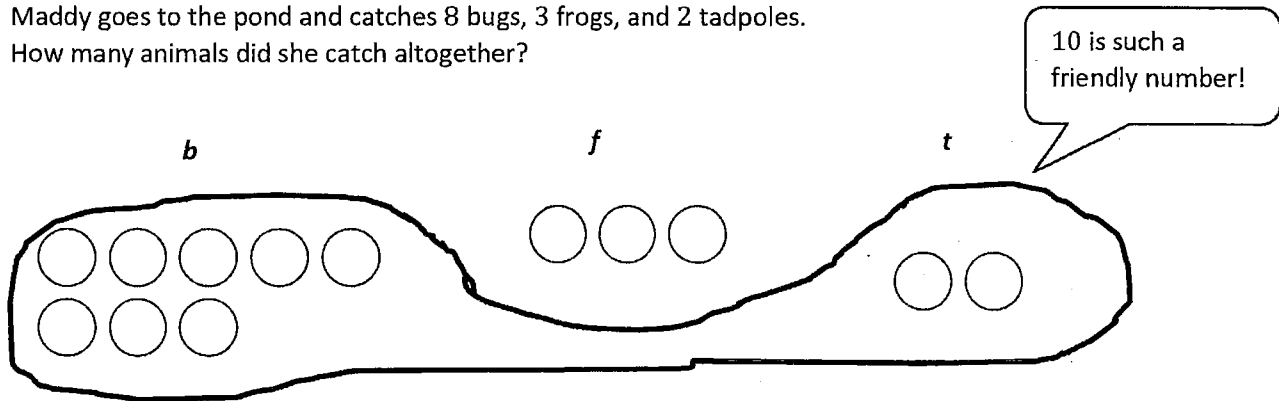# Homework Helpers

Grade 1
Module 2

G1-M2-Lesson 1

Read the math story. Make a simple math drawing with labels. Circle 10 and solve.

Maddy goes to the pond and catches 8 bugs, 3 frogs, and 2 tadpoles.
How many animals did she catch altogether?

> 10 is such a friendly number!

b   f   t

$$8 + 3 + 2 = 13$$
$$8 + 2 = 10$$
$$10 + 3 = 13$$

> I have 10 and 3 more. That makes 13 animals!

> I can make ten by adding 8 and 2. I can make one group with 8 and 2, just like we put a string around them in class!
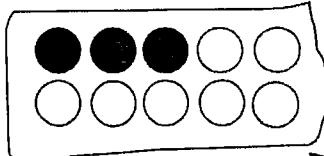
Maddy caught __13__ animals.

G1-M2-Lesson 2

1. Circle the numbers that make ten. Draw a picture. Complete the number sentence.

③ + 4 + ⑦ = □ $\boxed{10}$

X X X X

__4__ + __3__ + __7__   __4__ + $\boxed{10}$ = __14__

> I can rearrange the numbers to show the make ten strategy!
>
> When I add amounts in different orders, I get the same total.

> I can complete the new number sentence that shows how I just made ten. Both number sentences have the same total, 14.

> I can draw a group of 3 and 7 first because I know they make ten.
> I can circle the group of ten just like we did with the string.

2. Circle the numbers that make ten, and put them into a number bond. Write a new number sentence.

$\bigcirc$ 10

3 + ⑤ + ⑤ = __13__   __3__ + __10__ = __13__

> I can draw a number bond to show how I will make ten from two numbers.

> Here is my new number sentence. 10 and 3 more equals 13.

Lesson 2: Use the associative and commutative properties to make ten with three addends.

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2015-16

G1-M2-Lesson 3

Draw, label, and circle to show how you made ten to help you solve.
Complete the number sentences.

1. Todd has 9 raisins, and Jenny has 3. How many raisins do they
    have altogether?
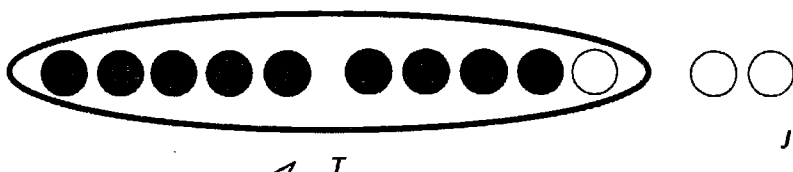
> I can make ten by putting
> 1 of Jenny's raisins in
> Todd's pile. Todd's pile had
> 9 raisins, but now it has 10.
> When I make 10 with
> Todd's 9 raisins and 1 of
> Jenny's raisins, there are 2
> raisins left in Jenny's pile.

⬤⬤⬤⬤⬤ ⬤⬤⬤⬤○   ○○

T   *J*

> I can draw 9 filled-in
> circles to show how
> many raisins Todd has
> and 3 open circles to
> show how many raisins
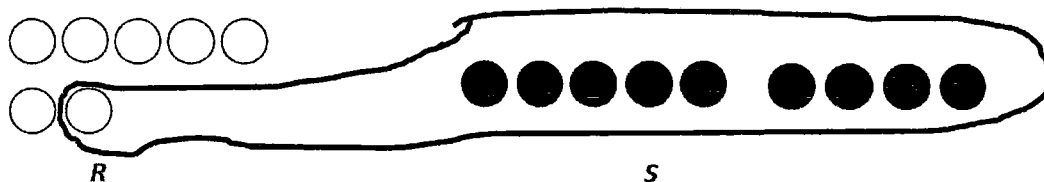> Jenny has.

9 and __3__ equals __12__ .

10 and __2__ equals __12__ .

Todd and Jenny have __12__ raisins altogether.

> Look! 9 and 3 is the
> same as 10 and 2.
> They both make 12.

2. There are 7 children sitting on the rug and 9 children standing. How many children are there in all?

○○○○○
○○   ⬤⬤⬤⬤⬤ ⬤⬤⬤⬤

R   *S*

> I can label my drawings, *R* for
> "rug" and *S* for "standing."

$9 + \underline{\ 7\ } = \underline{\ 16\ }$
$10 + \underline{\ 6\ } = \underline{\ 16\ }$

There are __16__ children in all.

> I'm noticing a pattern!
> Every time I make 10 today,
> the other addend is left with
> 1 less. 7 becomes 6.

> Making ten is more efficient
> than counting on 7 to add!

EUREKA MATH™   Lesson 3:   Make ten when one addend is 9.   49

G1-M2-Lesson 4

1. Solve. Make math drawings using the ten-frame to show how you made 10 to solve.

$8 + 9 = \underline{17}$ $\underline{10} + \underline{7} = \underline{17}$
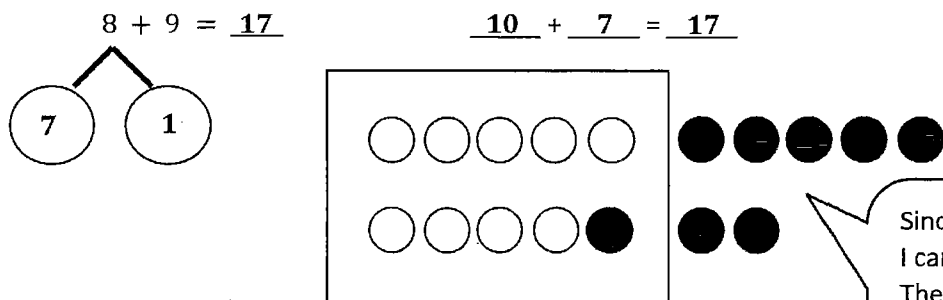
> Since 9 is the bigger addend, I can draw 9 circles first. Then, I can draw 8 filled-in circles. I can make a ten! It has a frame around it. That's why we call it a ten-frame!

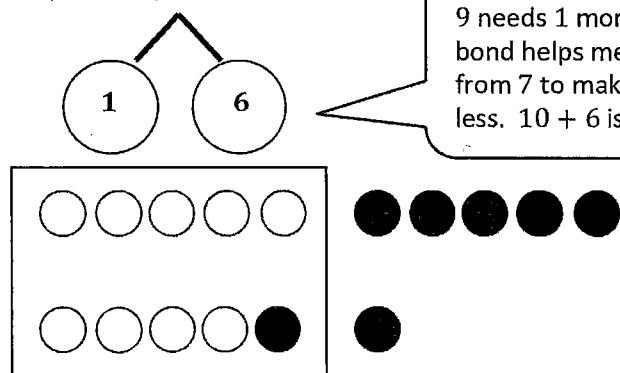2. Match the number sentences to the bonds you used to help you make ten.

$9 + 3 = \underline{\quad}$

$\underline{\quad} = 9 + 5$
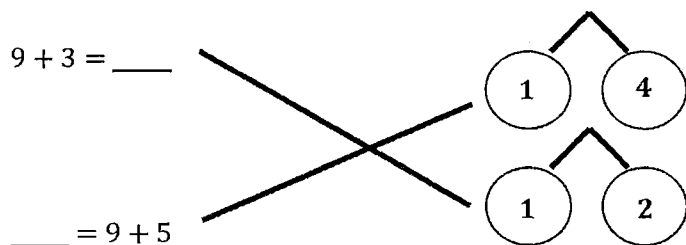
> I can break 3 apart into 1 and 2. I know that 9 and 1 make ten! 9 + 3 is the same as 10 + 2.

3. Show how the expressions are equal.

   Use number bonds to make ten in the 9 + *fact* expression within the true number sentence. Draw to show the total.
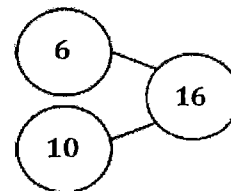
$10 + 6 = 9 + 7$

> 9 needs 1 more to make ten! My number bond helps me to see that when I take 1 from 7 to make ten, the other number is 1 less. 10 + 6 is easy to solve!

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G1-M2-Lesson 5

1. Solve the number sentences. Use number bonds to show your thinking. Write the 10 + fact and new number bond.

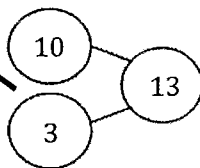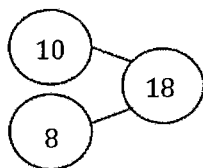$9 + 7 = \underline{16}$ $\underline{10} + \underline{6} = \underline{16}$

Solve. Match the number sentence to the 10 + number bond.

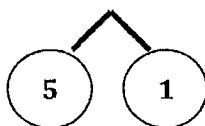$9 + 4 = \underline{13}$ $9 + 9 = \underline{18}$

9 + 7 is equal to 10 + 6, but when I draw my number bond, it's much easier to solve when one part is 10.

When I make number bonds with ten as one part, I can solve quickly, because 10 is a friendly number and I know my 10 + facts!
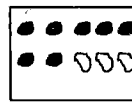
2. Use an efficient strategy to solve the number sentences.

$6 + 9 = \underline{15}$ $10 + 5 = 15$
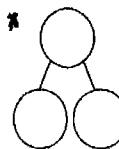
Count on   Make ten   Number bond

I can use the make ten strategy to solve quickly. It would take too long to count on 6.

$9 + 2 = \underline{11}$

It's easy for me to count on 2 to solve. Niiine, 10, 11.

EUREKA MATH   Lesson 5:   Compare efficiency of counting on and making ten when one   51
                                         addend is 9.

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G1-M2-Lesson 6

1. Solve. Use your number bonds. Draw a line to match the related facts. Write the related $10+$ fact.

$$9 + 4 = \underline{13}$$

$$9 + 8 = \underline{17}$$

$$\underline{10 + 7 = 17}$$

$$\underline{17} = 8 + 9$$

$$4 + 9 = \underline{13}$$

$$\underline{10 + 3 = 13}$$

> I don't always have to start with the first number when I'm adding, as long as I add all of the parts. I can start with 4 or 9. Either way my total is 13.

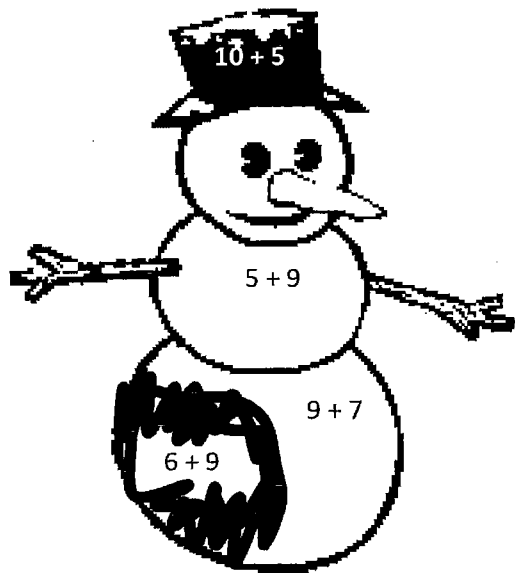2. Complete the addition sentences to make them true.

$$\underline{15} = 9 + 6$$
$$10 + \underline{9} = 19$$
$$\underline{10} + 7 = 17$$

> I know that if the total is 19 and one part is 10, then the other part must be 9.
> 10 and 9 make 19. 9 and 10 make 19, too!

3. Find and color the expression that is equal to the expression on the snowman's hat. Write the true number sentence.

$10 + 5$

$5 + 9$

$9 + 7$

$6 + 9$

$$10 + 5 = \underline{6 + 9}$$

> To solve $6 + 9$, I like to make ten with the 9. I can imagine breaking apart the 6 into 5 and 1 since 9 needs 1 to make ten!

Lesson 6:   Use the commutative property to make ten.

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G1-M2-Lesson 7

Draw, label, and circle to show how you made ten to help you solve. Write the number sentences you used to solve.

John has 8 tennis balls. Toni has 5. How many tennis balls do they have in all?

J

T
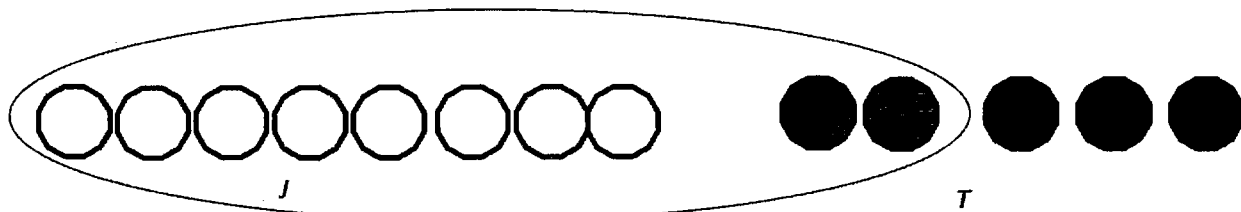
I can make ten with 8 by taking 2 from the group of 5. I'll draw a circle around it to show my group of ten.

When I make ten, I have 3 left. I can make a new number sentence, $10 + 3 = 13$.

$$\underline{\ 8\ } + \underline{\ 5\ } = \underline{\ 13\ }$$

$$\underline{\ 10\ } + \underline{\ 3\ } = \underline{\ 13\ }$$ John and Toni have __13__ tennis balls in all.

If $8 + 5 = 13$ and $10 + 3 = 13$, then I know that $8 + 5$ is the same as $10 + 3$.
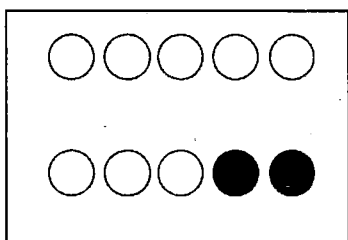
G1-M2-Lesson 8

1. Solve. Make math drawings using the ten-frame to show how you made ten to solve.

$8 + 8 = \underline{16}$

2   6

$\underline{10} + \underline{6} = \underline{16}$

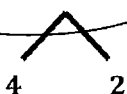> 8 needs 2 to make ten. So I broke apart the second 8 into 2 and 6.

> I made ten first in my drawing. The ten is framed! My picture shows a new expression, 10 + 6.

2. Make math drawings using ten-frames to solve. Circle the true number sentences. Write an X to show number sentences that are not true.
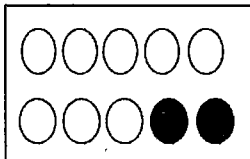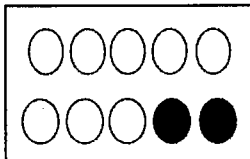
$8 + 7 = 4 + 10$
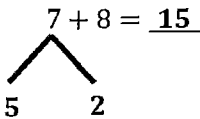
2   5

$10 + 4 = 6 + 8$

4   2

> When I have 8 as one addend, I will always break apart the second addend with 2 as one of the parts! That's how I make ten!

> My picture shows the 7 in two places, because I have broken apart 7 into 2 and 5. My number bond shows this!

Lesson 8:   Make ten when one addend is 8.

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G1-M2-Lesson 9

1. Use number bonds to show your thinking. Write the 10 + fact.

$7 + 8 = \underline{15}$ $\underline{15} = 10 + \underline{5}$
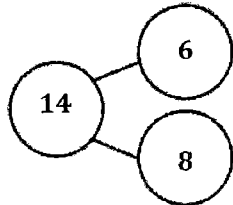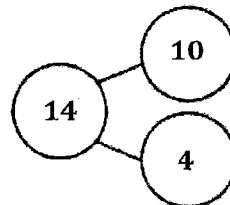
5   2

> If I solve 8 + 7 by counting on, it will take awhile. I can make ten instead. I can take 2 from 7 to make ten with 8.

2. Complete the addition sentences and the number bonds.

$14 = \underline{6} + 8$ 14 — 6, 8 $10 + 4 = \underline{14}$ 14 — 10, 4

> I can solve more efficiently when I use my 10 + facts. This number bond was faster to complete.

3. Draw a line to the matching number sentence. You may use a number bond or 5-group drawing to help you.

$13 = 8 + 5$

2   3

Ben has 8 green grapes and 3 purple grapes. How many grapes does he have?

16 — 10, 6
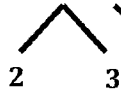
$11 = 10 + 1$

> It was more efficient for me to count on here. I just thought Eiiight, 9, 10, 11.

$8 + 8 = 16$
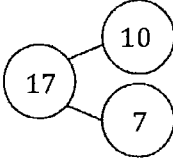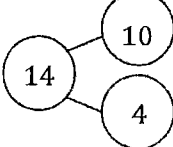
> I like to use the make ten strategy when the second addend is more than 3 like in 8 + 5. I can break apart 5 to make an easier problem, 10 + 3.
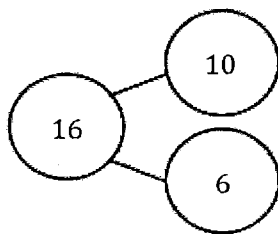
$10 + 3 = 13$

G1-M2-Lesson 10

1. Solve. Match the number sentence to the ten-plus number bond that helped you solve the problem. Write the ten-plus number sentence.

$8 + 9 = \underline{17}$

⌃
7   1

$10 + \underline{3} = \underline{13}$

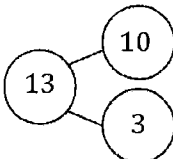For 7 + 6, I can make ten with 7 because it's only 3 away from ten. I have to get the 3 out of 6. I know 10 + 3 in a snap!

$7 + 6 = \underline{13}$

⌃
3   3

$10 + \underline{7} = \underline{17}$

For 8 + 9, since 9 is one addend, I can get the 1 out of the other addend! I broke the 8 apart into 7 and 1 to make ten with 9.

$6 + 8 = \underline{14}$

⌃
4   2

$10 + \underline{4} = \underline{14}$

2. Complete the number sentences so they equal the given number bond.
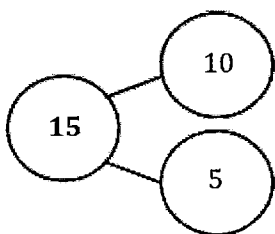
$\underline{15} = 9 + 6$

$8 + \underline{7} = 15$

Since 9 + 6 = 15 and 10 + 5 = 15, I can say the true number sentence: 9 + 6 = 10 + 5.

$\underline{15} = 7 + \underline{8}$

Lesson 10:   Solve problems with addends of 7, 8, and 9.

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G1-M2-Lesson 11

Look at the student work. Correct the work. If the answer is incorrect, show a correct solution in the space below the student work.

Jeremy had 7 big rocks and 8 little rocks in his pocket. How many rocks does Jeremy have?

Mia's Work	Joe's Work	Pranav's Work
$7 + 8 = 15$	$8 + 7 = 16$	$10 + 5 = 15$

Mia used the make ten strategy and drew a number bond to break apart 7 into 5 and 2. She circled 8 and 2 because they make ten!

$8 + 7 = 15$

Pranav drew the rocks in neat 5-groups. His strategy was to make 10 from 8 by breaking 7 into 5 and 2. He made a frame to show 10.

Joe drew nice 5-groups at first, but I think he lost track of his count. His picture shows that 7 can be broken apart into 2 and 6. That's not possible! I can correct this by breaking apart 7 into 5 and 2 like Mia!

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Lesson 11: Share and critique peer solution strategies for *put together with total unknown* word problems.

57

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G1-M2-Lesson 12

1. Make a simple math drawing. Cross off from the 10 ones or the other part in order to show what happens in the story.

   Bill has 16 grapes. 10 are on the vine, and 6 are on the ground.

   Bill eats 9 grapes from the vine. How many grapes does Bill have left?
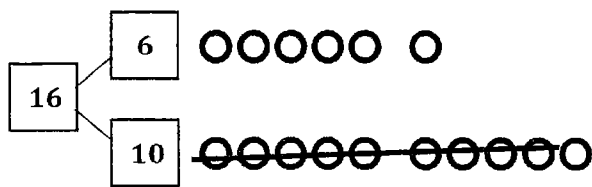
   The story says Bill eats 9 grapes from the vine. There are 10 grapes on the vine. I can take away 9 grapes from the ten all at once.

   There is 1 left from the 10 and 6 left from the other part. He still has 7 grapes!

   Bill has __7__ grapes left.

2. Use the number bond to fill in the math story. Make a simple math drawing. Cross off from the 10 ones or the other part in order to show what happens.

   The number bond has 12 in the total, so she must have had 12 carrots.
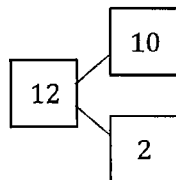
   This 10 represents the carrots on her plate. I'll draw 10 circles.

   Naya has __12__ carrots.

   10 are on her plate, and __2__ are in the bag.

   She ate 9 of the carrots on her plate.

   How many carrots does she have now?

   Math drawing:

   P ⊖⊖⊖⊖⊖ ⊖⊖⊖⊖O

   B OO
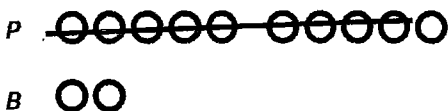
   This 2 must represent the carrots in the bag. I'll draw 2.

   Naya has __3__ carrots now.

3. Use the number bond below to come up with your own math story. Include a simple math drawing. Cross out from 10 ones to show what happens.

I can tell a story that matches this number bond:

"There are 12 friends in my karate class. 10 are girls. 2 are boys. 9 of the girls left. How many friends are still there?"

```
        ┌────┐
   ┌────┐│ 10 │
   │ 12 │└────┘
   └────┘┌────┐
         │ 2  │
         └────┘
```
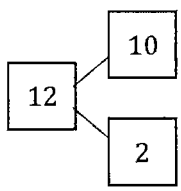
Math drawing:

G ⊘⊘⊘⊘⊘ ⊘⊘⊘⊘○

B ○○

There were 12 friends at first, and then 9 left, so my number sentence is $12 - 9 = 3$.

Number Sentence:

$$12 - 9 = 3$$

My statement is a "word sentence" to answer the question, "How many friends are still there?"

Statement:

3 friends are still there.

G1-M2-Lesson 13

1. Solve. Use 5-group rows, and cross out to show your work. Write number sentences.

10 ducks are in the pond, and 7 ducks are on the land. 9 of the ducks in the pond are babies, and all the rest of the ducks are adults. How many adult ducks are there?

> I can make 5-group rows to show the parts from my number bond, 10 and 7.

> I can cross off 9 circles from the 10 because those stand for the baby ducks in the pond.
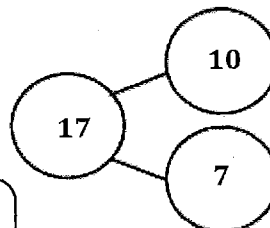
$$17 - 9 = 8$$

There are __8__ adult ducks.

⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ○   ● ● ● ● ● ● ●

2. Complete the number bond, and fill in the math story. Use 5-group rows, and cross out to show your work. Write number sentences.
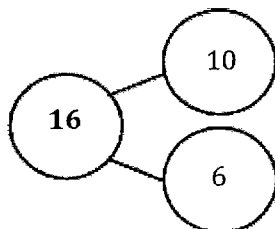
> My number bond shows how many pigs were outside in the beginning of the story.

There were __10__ pigs lying in the mud and __6__ pigs eating by the trough outside. 9 of the muddy pigs went inside the barn. How many pigs stayed outside?

⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ⊝ ○   ● ● ● ● ● ● $$16 - 9 = 7$$

> I can always take away 9 from the ten. That leaves me with 1, which I can add to the other part, so $1 + 6 = 7$. That means $16 - 9 = 7$.

There are __7__ pigs outside.

Lesson 13:   Solve word problems with subtraction of 9 from 10.

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G1-M2-Lesson 14

1. Draw and circle 10. Subtract and make a number bond.

   $17 - 9 = \underline{8}$
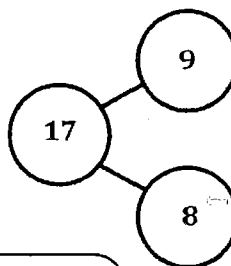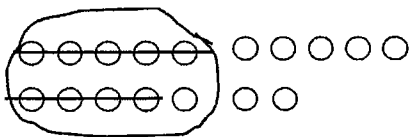
   I can break apart 17 into 10 and 7. I can take 9 from the ten! It's called the take from ten strategy! Then, 1 and 7 make 8.

2. Complete the number bond, and write the number sentence that helped you.
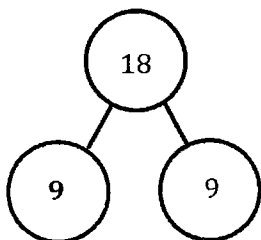
   $\underline{1 + 8 = 9}$

G1-M2-Lesson 15

> I know that 15 is made of 10 and 5. When I take 9 from 10, I can see I have 6 circles left.

1. Write the number sentence for each 5-group row drawing.

⊘⊘⊘⊘⊘ ⊘⊘⊘⊘○   ○○○○○
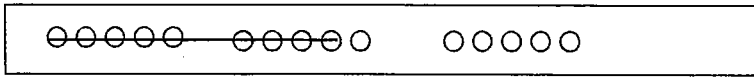
$$15 - 9 = 6$$

2. Draw 5-groups to complete the number bond, and write the 9-number sentence.

⊘⊘⊘⊘⊘ ⊘⊘⊘⊘○   ○○○○
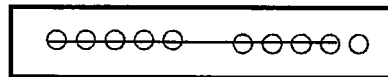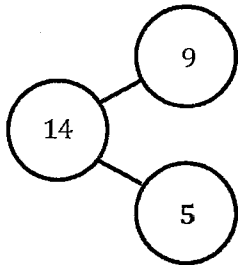
$$14 - 9 = 5$$
$$9 + 5 = 14$$

> I can think of 14 as 10 and 4. I can take 9 from the ten inside the frame. There is 1 left in the frame and 4 on the other side, so that's 5.

3. Draw 5-groups to show making ten and taking from ten to solve the two number sentences.
   Make a number bond, and write two additional number sentences that would have this number bond.

$$7 + 9 = \underline{}$$

○○○○○
○
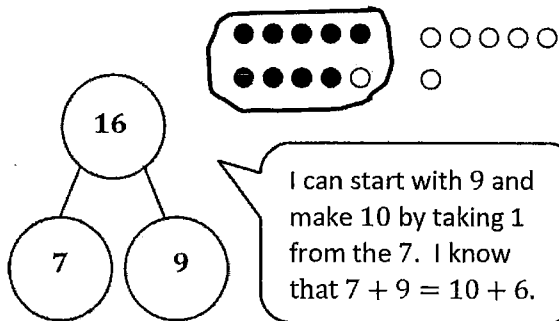
> I can start with 9 and make 10 by taking 1 from the 7. I know that $7 + 9 = 10 + 6$.

$$7 + 9 = 16$$
$$16 - 7 = 9$$

$$16 - 9 = \underline{}$$

⊘⊘⊘⊘⊘ ⊘⊘⊘⊘○   ○○○○○ ○
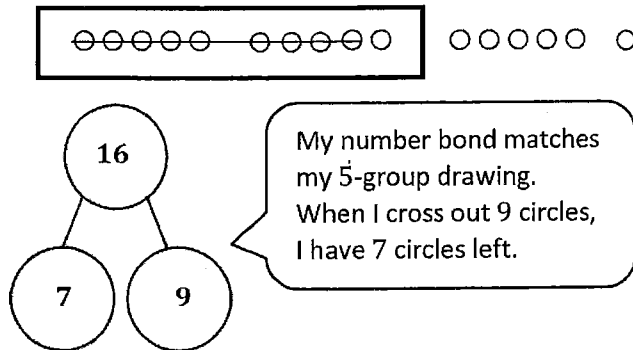
> My number bond matches my 5-group drawing. When I cross out 9 circles, I have 7 circles left.

$$16 - 7 = 9$$
$$9 + 7 = 16$$

G1-M2-Lesson 16

1. Complete the subtraction sentences by using either the count on or take from ten strategy. Tell which strategy you used.

$11 - 9 = \underline{2}$ ⑨ 10 11

> Since 9 is so close to 11, I can start at 9 and count on... niiiine, 10, 11.

☐ take from ten
☒ count on

$15 - 9 = \underline{6}$ [○○○○○ ○○○○○]   ○○○○○
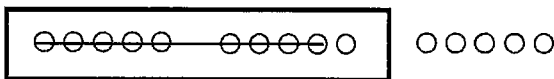
> I can break 15 into 10 and 5. Then I can take 9 from the ten. $1 + 5 = 6$.

☒ take from ten
☐ count on

---

2. Shelley collected 12 rocks. She painted 9 of them. How many of her rocks are not painted? Choose the count on or take from ten strategy to solve.

⑨ 10 11 12

$9 + \underline{3} = 12$

3 of Shelley's rocks are not painted.

I chose this strategy:

☐ take from ten
☒ count on

3. The bakery has 16 loaves of bread. They sell 9 loaves before lunch. How many loaves do they have left?
    Choose the count on or take from ten strategy to solve.

⊖⊖⊖⊖⊖ ─ ⊖⊖⊖⊖○   ○○○○○   ○

$16 - 9 = \underline{\ 7\ }$ $10 - 9 = 1$

6   10 $1 + 6 = 7$

I chose this strategy:

☒ take from ten

☐ count on

4. Draw 5-groups to show making ten and taking from ten to solve the two number sentences. Make a
    number bond, and write two additional number sentences that would have this number bond.

$7 + 9 = \underline{\quad}$ $16 - 9 = \underline{\quad}$

⊖⊖⊖⊖⊖ ─ ⊖⊖⊖⊖○   ○○○○○   ○

16   16

7   9   7   9

I can start with 9 and
make a group of 10.
I know that
$7 + 9 = 10 + 6$.

My number bond matches
my 5-group drawing. When I
cross out 9 circles, I have
7 circles left.

$7 + 9 = 16$ $16 - 7 = 9$

$16 - 7 = 9$ $9 + 7 = 16$

G1-M2-Lesson 17

> I can take away 8 from the ten. $10 - 8 = 2$. Then, I can add 2 to the other part 7. 2 and 7 equals 9.

1. Match the number sentence to the picture or to the number bond.

$13 - 8 = \underline{\ 5\ }$

$17 - 8 = \underline{\ 9\ }$

17

10 7

$10 - 8 = 2$

$2 + 7 = 9$
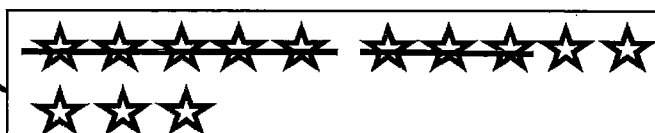
2. Draw and ⊙circle 10. Then subtract.

Kiera has 14 balls of clay. She gives 8 balls to her brother. How many balls of clay does Kiera keep?
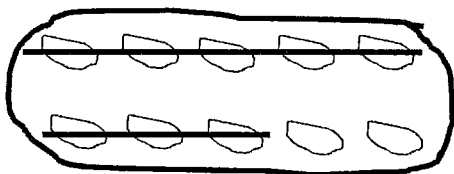
> I can draw the total balls of clay as 10 and 4. I can draw a line to take away 8 from the ten. I see that $2 + 4 = 6$.

Kiera keeps __6__ balls of clay.

2015-16

3. Use the picture to fill in the math story. Show a number sentence.
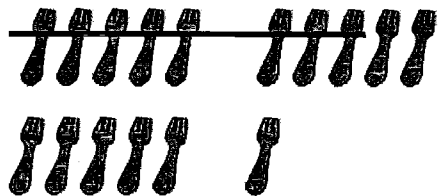
> I can check this on my fingers. I have 10 fingers and 6 pretend fingers. When I take away 8 fingers from the ten, 2 are still up. I can add them onto my 6 pretend fingers. Now I have 8.

> The 5-group drawing shows a total of 16 forks. I know that 8 forks were used for dinner because that's how many are crossed off.

There were __16__ forks on the table. __8__ forks were used for dinner. How many forks were left for dessert?

$$16 - 8 = 8$$

8 forks were left for dessert.

Try it! Can you show how to solve this problem with a number bond?

$$16$$
$$\bigwedge$$
$$10 \quad 6$$

$$10 - 8 = 2$$

$$2 + 6 = 8$$

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G1-M2-Lesson 18

1. Draw 5-group rows, and cross out to solve. Write the 2 + addition sentence that helped you add the two parts.

   Sam had 17 markers on his desk. He used 8 markers for his art project. How many markers does Sam have left?

   $17 - 8 = \underline{\ 9\ }$

   $2 + 7 = 9$

   My 5-group rows are just like 10 real fingers and 7 pretend fingers. I can draw a frame around the ten.
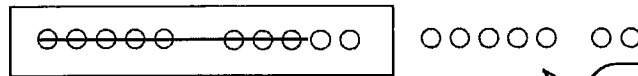
   I can draw 5-group rows. 17 is 10 and 7. I can cross out 8 circles, just like when I hide 8 fingers. Now, I can see an addition sentence in my picture, $2 + 7 = 9$.

   Sam has __9__ markers left.

2. Show making ten or taking from ten to solve the number sentences.

   $5 + 8 = \underline{\ 13\ }$

   3   2

   $8 + 2 = 10$

   $10 + 3 = 13$

   $13 - 8 = \underline{\ 5\ }$

   10   3

   $10 - 8 = 2$

   $2 + 3 = 5$

   When I make ten with 8, I need to break apart the other number so I can add 2 to the 8. $8 + 2 = 10$. Then, I add on the other part, so $10 + 3 = 13$.

   Every time I take from ten with 8, I add 2 to the other part, $2 + 3 = 5$.

G1-M2-Lesson 19

1. Complete the subtraction sentence by using the take from ten strategy and count on.

> I can use the number path to count up by making ten first.

$$+2 \qquad +3$$

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |

$$13 - 8 = \underline{\ 5\ } \qquad\qquad 8 + \underline{\ 5\ } = 13$$
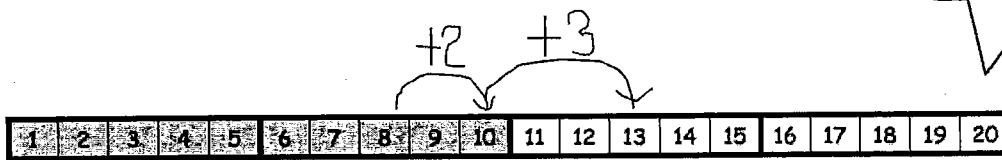
$$\overset{\wedge}{10 \quad 3}$$

> I can start at 8 and hop 2 squares to get to 10 and then hop 3 more to get to 13. $2 + 3 = 5$. That's just like when I take from the ten!
> $10 - 8 = 2$, and $2 + 3 = 5$.

2. Choose the count on strategy or the take from ten strategy to solve.

$$15 - 8 = \underline{\ 7\ }$$

$$\overset{\wedge}{10 \quad 5}$$

$$12 - 8 = \underline{\ 4\ }$$

⑧ 9 10 11 12

> I know 8 needs 2 to get to ten. 12 is $10 + 2$. I need 2 more to get to 12. I can add the 2 I need to get to ten and the 2 I need to get to 12 to find the answer.
> $2 + 2 = 4$.

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3. Use a number bond to show how you solved using the take from ten strategy.

Benny ate 8 apple slices. If he started with 17, how many apple slices does he have left?

$17 - 8 = \underline{\ 9\ }$

10   7

$10 - 8 = 2$

$2 + 7 = 9$

Benny has __9__ apple slices left.

4. Match the addition number sentence to the subtraction number sentence. Fill in the missing numbers.

$14 - 8 = \underline{\ 6\ }$

$16 - 8 = \underline{\ 8\ }$

$8 + \underline{\ 8\ } = 16$

$8 + \underline{\ 6\ } = 14$

I can start at 8 on the number path and hop 2 squares to get to 10 and then 4 more hops and I'm at 14. $2 + 4 = 6$

G1-M2-Lesson 20

1. Complete the number sentences to make them true.

$$14 - 9 = \underline{\ 5\ } \qquad 14 - 8 = \underline{\ 6\ } \qquad 14 - 7 = \underline{\ 7\ }$$

I can make a picture in my mind. I can take away 9 from ten and then add 1 and 4. $1 + 4 = 5$

I can think of the number path and count on to make ten first. I can imagine starting at 8 and hopping 2 squares to get to ten. Then I can hop 4 more to get to 14. 2 and 4 make 6.

I can use the take from ten strategy with my fingers. I can drop 7 fingers, and I have 3 fingers left. I'll add those to my 4 pretend fingers. $3 + 4 = 7$

2. Read the math story. Use a drawing or a number bond to show how you know who is right.

Emma says that the expressions $16 - 7$ and $17 - 8$ are equal. Jordan says they are not equal. Who is right?

Emma is right.

$$16 - 7 = \underline{\ 9\ } \qquad\qquad 17 - 8 = \underline{\ 9\ }$$

10   6 $\qquad\qquad\qquad$ 10   7

$$10 - 7 = 3 \qquad\qquad\qquad 10 - 8 = 2$$
$$3 + 6 = 9 \qquad\qquad\qquad 2 + 7 = 9$$

When I take from the ten in each problem, I make easier number sentences, $3 + 6 = 9$ and $2 + 7 = 9$. Both expressions equal 9, so Emma is right; the expressions are equal!

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Jordan and Emma are trying to find several subtraction number sentences that start with numbers larger than 10 and have an answer of 8. Help them figure out number sentences. They started the first one.

$17 - 9 = \underline{\ 8\ }$	$18 - 10 = 8$
$16 - 8 = 8$	$15 - 7 = 8$

If I subtract 1 from the numbers in $17 - 9$, I'll have $16 - 8$. The difference doesn't change; it's still 8.

If I add 1 to the numbers in $17 - 9$, I'll have $18 - 10$. The difference doesn't change; it's still 8.

G1-M2-Lesson 21

Oscar and Jayla both solved the word problems.
Write the strategy used under their work.
Check their work. If incorrect, solve correctly.
If solved correctly, solve using a different strategy.

Strategies:

- Take from 10
- Make 10
- Count on
- I just knew

There were 16 granola bars in the oven. 7 of them had nuts.
The rest were nut free. How many granola bars were nut free?

Jayla used a good strategy, but she didn't start at the correct number 7. She should have counted on 3 to get to 10 (see below).

Oscar's Work

$3 + 6 = 9$

Jayla's Work

$2 + 6 = 8$

Oscar is correct! He drew the total, 16, in 5-group rows. Then, he crossed out 7. Look, there are 3 and 6 more left!

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a.   Strategy: _**Take from 10**_

$$16 - 7 = 9$$

$$7 + 3 = 10$$

$$10 + 6 = 16$$

$$3 + 6 = 9$$

> The make 10 strategy can be used to solve too. 7 needs 3 to make 10. 10 needs 6 to make 16.
> $3 + 6 = 9$

b.   Strategy: _**Count on**_

$$7 \xrightarrow{+3} 10 \xrightarrow{+6} 16$$

$$3 + 6 = 9$$

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Lesson 21:   Share and critique peer solution strategies for *take from with result unknown* and *take apart with addend unknown* word problems from the teens.

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73

G1-M2-Lesson 22

Read the problem. Draw and label. Write a number sentence and a statement that matches the story. Remember to draw a box around your solution in the number sentence.

Lee has 16 pencils. 7 of the pencils are red, and the rest are green. How many green pencils does Lee have?

$$O O O O O \; O O O O O \; O O O O O \; O$$

r g
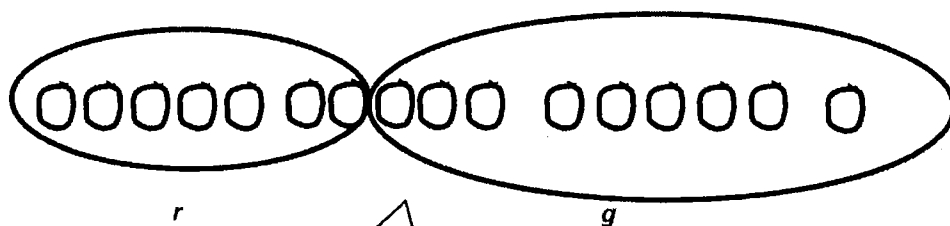
> I can draw 16 circles in 5-group rows for the 16 pencils. I can circle 7 circles and label this part r because there are 7 red pencils. I can circle the part that is left and label this g because the rest of the pencils are green. I can quickly see the part labeled g is 9. There are 9 green pencils.

> I can subtract 7 from 16 to get the answer. My number sentence is $16 - 7 = 9$. I put a box around 9 because that was the number I did not know in the story.
>
> I also could write $7 + 9 = 16$. That's another way to solve the problem. I would put a box around 9 since that's the unknown number in the story.

$$16 - 7 = \boxed{9}$$

9 *of the pencils are green.*

> My statement to answer the question is "9 of the pencils are green."

Lesson 22: Solve *put together/take apart with addend unknown* word problems, and relate counting on to the take from ten strategy.

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G1-M2-Lesson 23

Read the problem. Draw and label. Write a number sentence and a statement that matches the story.
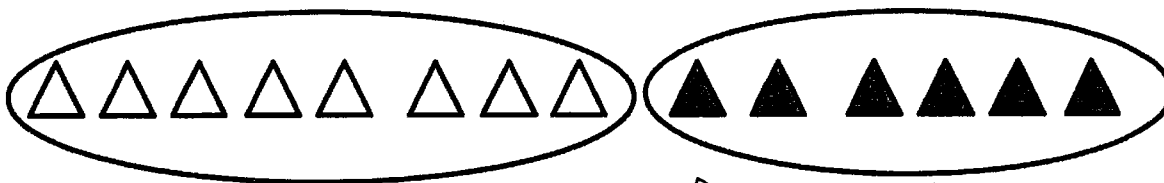
Sue drew 8 triangles on Monday and some more triangles on Tuesday. Sue drew 14 triangles in total. How many triangles did Sue draw on Tuesday?

M   **T**

I can draw 8 triangles first. Those are the ones Sue drew on Monday. I can write M to label them.

Then I will keep drawing triangles until I have 14 triangles. I need 2 more triangles to make 10, and then I will draw 4 more to make 14 triangles. That's 6 triangles that Sue drew on Tuesday.

The T stands for Tuesday. I can color them in so I can tell which triangles I added.

Let me circle each part.

$$8 + \boxed{6} = 14$$

Sue drew 6 triangles on Tuesday.

This is my statement. It answers the question in the problem.

My number sentence is $8 + 6 = 14$. I put a box around 6 because that was the number I did not know in the story.

I *could* write $14 - 8 = 6$ since that's another way to get the answer. I would still put a box around the 6.

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Lesson 23: Solve *add to with change unknown* problems, relating varied addition and subtraction strategies.

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75

G1-M2-Lesson 24

Read the problem. Draw and label. Write a number sentence and a statement that match the story.

There were 14 pencils on the table. Some students borrowed pencils. There were 9 pencils left on the table. How many pencils did the students borrow?
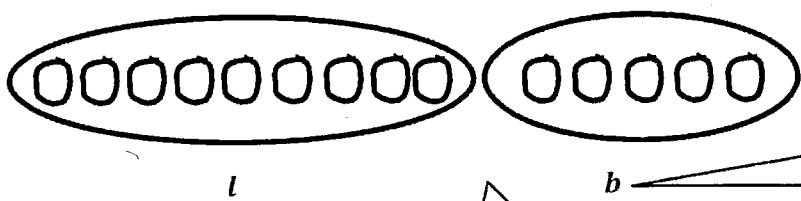
The *b* stands for borrowed. These are pencils students borrowed.

l   *b*

The *l* stands for pencils LEFT on the table.

I can draw 14 circles for the 14 pencils. Then I can circle 9 of them. These are the 9 pencils left on the table. The rest are the pencils the students borrowed, so there are 5 pencils that students borrowed. I can circle that part too. This makes it easier to see both parts.

My number sentence is $14 - 5 = 9$. That shows that there were 14 pencils and 5 were borrowed, leaving 9 pencils left on the table. I could have said $9 + 5 = 14$ or $14 - 9 = 5$. Those would be correct, too. That's why it's important to put the rectangle around my answer in the number sentence.

$14 - \boxed{5} = 9$

5 pencils were borrowed.

My statement to answer the question will be "5 pencils were borrowed."

G1-M2-Lesson 25

1. Circle "true" or "false."

Equation	True or False?
$9 + 1 = 5 + 4$	True / (False)

> The two equations have to be the same amount.
> $9 + 1 = 10$
> $5 + 4 = 9$
> They are not the same. I need to circle *false*.

2. Lola and Charlie are using expression cards to make true number sentences. Use pictures and words to show who is right.

Charlie picked $11 - 8$, and Lola picked $2 + 1$. Charlie says these expressions are not equal, but Lola disagrees. Who is right? Use a picture to explain your thinking.

> The two expressions have to be the same amount. I can solve $11 - 8$ using the take from ten strategy. $10 - 8 = 2$, and then I add back the extra 1 from 11. $2 + 1 = 3$, so $11 - 8 = 3$.

$11 - 8 = 3$ *and* $2 + 1 = 3$.

```
      /\
    10   1
```

$10 - 8 = 2$
$2 + 1 = 3$

> $2 + 1$ is easy. That's 3. Since $11 - 8 = 3$ and $2 + 1 = 3$, the two expressions are equal. Lola is right.

Lola is right. $11 - 8 = 2 + 1$

3. The following addition number sentence is FALSE. Change one number in each problem to make a TRUE number sentence, and rewrite the number sentence.

$10 + 5 = 8 + 6$ $\underline{10 + 5 = 9 + 6}$
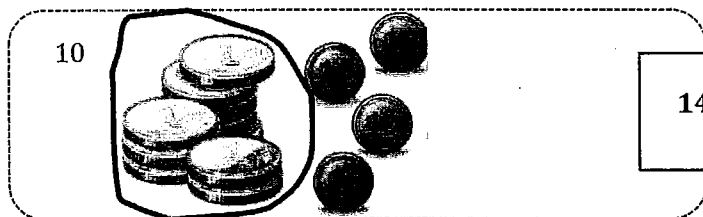
> $10 + 5 = 15$. But $8 + 6 = 14$. I can change the 8 to a 9 since $9 + 6 = 15$, just like $10 + 5$.
>
> I could change the 5 to a 4 to make $10 + 4 = 8 + 6$ if I wanted. That would be another true number sentence.

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Lesson 25: Strategize and apply understanding of the equal sign to solve equivalent expressions.

77

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G1-M2-Lesson 26

1. Circle ten. Write the number. How many tens and ones?
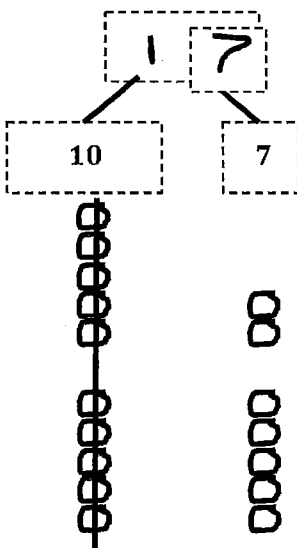
10

14

is the same as __1__ ten and __4__ ones.

This group of coins is a set of 10. I will circle it. There are only 4 other coins, so I do not have enough to make another ten. That's 1 ten and 4 ones, which is the same as 14.

2. Use the Hide Zero pictures to draw the ten and ones shown on the cards.

1 ten

| 1 | 7 |

10   7
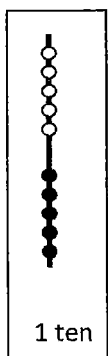
17 is made of 10 and 7. I can show 10 on the longer card and 7 on the short card. I need to draw 10 dots on the line, or stick. That shows I have a full set of ten. Then I need to draw 7 dots next to it for the other 7.

Lesson 26: Identify 1 ten as a unit by renaming representations of 10.

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3. Draw using 5-group columns to show the tens and ones.

___1___ ten and ___2___ ones
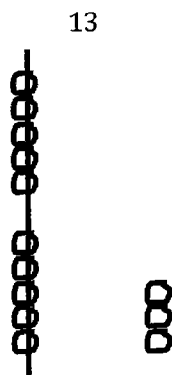
> This is like the problem above. Let me count the pigs.... Hmm, there are 12 pigs. I'll add the dots to my line, or stick, first. There should be 10 on this since the line reminds us we have 1 full set of 10 to make 1 ten. Then I have to draw 2 more because 12 is 2 more than 10. That's 1 ten and 2 ones.

4. Draw your own examples using 5-group columns to show the tens and ones.

13

13 is the same as ___1___ ten and ___3___ ones.

> I can line up 10 dots in a row. Then I put a line through them to show they are one ten. I need 13 altogether. I can draw 3 more dots in a new column. 13 is the same as 1 ten and 3 ones.

G1-M2-Lesson 27

1. Solve the problems. Write the answers to show how many tens and ones. If there is only one ten, cross off the "s."

$8 + 6 =$
| 1 | 4 |

Since it's just 1 ten, I can cross of the "s."

___1___ tens and ___4___ ones

How many more do I need to get to 10 from 8? 2. When I use 2 from the 6, I still have to add 4 more. That's 1 ten and 4 ones to make 14.

$14 - 8 =$
| 0 | 6 |

This time I leave the "s." We say 0 tens.

$10 - 8 = 2$. If I take 8 from 10, I will have 2 and 4 left. $2 + 4 = 6$

___0___ tens and ___6___ ones

2. Read the word problem. Draw and label. Write a number sentence and statement that matches the story. Rewrite your answer to show its tens and ones. If there is only 1 ten, cross of the "s."

Jack sees 5 birds on the birdhouse and 15 birds in the tree. How many birds does Jack see?

I can draw 15 circles for the birds in the tree and 5 more circles for the birds on the birdhouse. Altogether, there are 20 birds.

●●●●● ○○○○○ ○○○○○ ○○○○○
bh   *t*
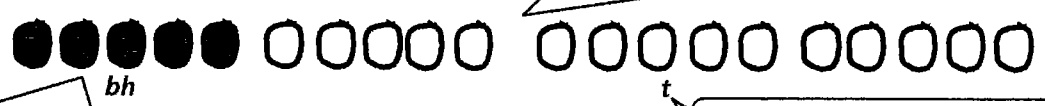
The *bh* stands for birds on the birdhouse.

The *t* stands for birds in the tree.

My number sentence matches my drawing.

$15 + 5 = \boxed{20}$

There are 20 birds.

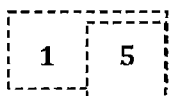20 is made of 2 tens with no ones left over.

___2___ tens and ___0___ ones

Lesson 27: Solve addition and subtraction problems decomposing and composing teen numbers as 1 ten and some ones.

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G1-M2-Lesson 28

1. Solve the problems. Write your answers to show how many tens and ones.

$9 + 6 =$ | 1 | 5 |

$\underline{\quad 9 \quad} + \underline{\quad 1 \quad} = \underline{\quad 10 \quad}$

$\underline{\quad 10 \quad} + \underline{\quad 5 \quad} = \underline{\quad 15 \quad}$

9 needs 1 more to make a ten. Then I need to add 5 more.
$10 + 5 = 15$. That's 1 ten and 5 ones.

2. Solve. Write the two number sentences for each step to show how you make a ten.

Ani had 9 flowers. She picks 5 new flowers.   How many flowers does Ani have?

$\underline{\quad 9 \quad} + \underline{\quad 5 \quad} = \underline{\quad 14 \quad}$

$\underline{\quad 9 \quad} + \underline{\quad 1 \quad} = \underline{\quad 10 \quad}$

$\underline{\quad 10 \quad} + \underline{\quad 4 \quad} = \underline{\quad 14 \quad}$

9 needs 1 more to make 10.

$9 + 1 = 10$

Since I took the 1 from 5, I have to add 4 more.

$10 + 4 = 14$

G1-M2-Lesson 29

Solve the problems. Write your answers to show how many tens and ones.
Show your solution in two steps:

Step 1: Write one number sentence to subtract from ten.

Step 2: Write one number sentence to add the remaining parts.

$$\boxed{1 \quad 5} - 9 = 6$$

$$\underline{10} - \underline{9} = \underline{1}$$

15 is made of 10 and 5. I can take 9 from 10 quickly.
$10 - 9 = 1$

$$\underline{1} + \underline{5} = \underline{6}$$

Then I can add 1 to the 5 I didn't touch. $1 + 5 = 6$

Lesson 29: Solve subtraction problems using ten as a unit, and write two-step solutions.

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