Grade 1 Module 6

Noah ate 7 jelly beans. His older sister Charlotte ate 15 jelly beans. How many more jelly beans did Charlotte eat than Noah?

C

I can first draw and label a tape diagram to represent the number of jelly beans Noah ate, 7. I can label this tape diagram with the letter *N*.

Next, I can draw and label a second tape diagram right underneath to represent the number of jelly beans Charlotte ate, 15, and label it with the letter C. I can see that Charlotte's tape is longer than Noah's because she ate more jelly beans. Drawing and labeling a double tape diagram like this helps me easily compare numbers.

N 7

7

?

15

Noah's tape represents 7, so this much of Charlotte's tape is also 7.

This part of Charlotte's tape represents how many more jelly beans she ate. I can write a question mark in this part to represent the unknown.

Charlotte ate 8 more jelly beans than Noah.

Finally, I need to write my statement that matches my story. This will help me check my answer and make sure it makes sense.

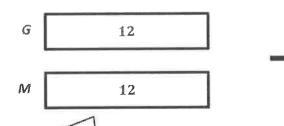
Now I can write a number sentence to find the unknown. There are many strategies to find the unknown. I can count on from 7 to get to 15. I can think of this problem as 7+?=15 to get 8. But, in this case I choose to use subtraction since it is the most efficient.



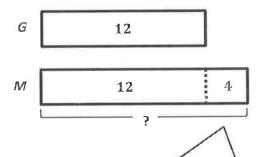
Lesson 1:

Solve compare with difference unknown problem types.

1. Grace used 12 blocks to build a tower. Matt used 4 more blocks than Grace. How many blocks did Matt use?



I can draw a double tape diagram to represent the story. First, I can draw a tape diagram that represents the number of blocks, 12, that Grace used to build a tower and label her tape with the letter G. Then I can draw a second tape diagram to represent the number of blocks Matt used to build his tower and label it with the letter M. Since I don't yet know how many blocks Matt used for his tower, I can begin by drawing and labeling his tape the same size as Grace's.



The story says, "Matt used 4 more blocks than Grace." So, I need to draw an extra part of tape next to Matt's to show that he used 4 more blocks than Grace. The unknown is the total number of blocks Matt used. I can label this with a question mark.

To check that I've drawn and labeled all of the known and unknown information, I can read each part of the story again. As I read, I can touch the part of the double tape diagram that corresponds to what I'm saying.

Matt used 16 blocks.

Now I can write a number sentence to help me find the total number of blocks and a statement that answers the question.

2. Susan found 9 fewer seashells than John. John found 13 seashells. How many seashells did Susan find?

I can start by drawing and labeling a double tape diagram to represent the story. I will draw my two tapes the same size.

The first sentence of the story says, "Susan found 9 fewer seashells than John." That means John found 9 more seashells than Susan. I can show this on my diagram by adding another part to John's tape and labeling it with a 9.

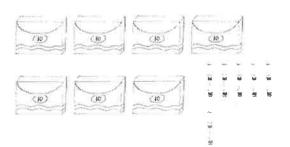
The second sentence of the problem says, "John found 13 seashells." That means 13 represents the total number of seashells John found, so I can put the arms around John's entire tape diagram and label it 13. The question, however, is, "How many seashells did Susan find?" I know that if I find out the unknown part for John's tape, then I also find the unknown of Susan's tape,

13 - 9 = 4

Susan found 4 seashells.

I can use subtraction to find the missing part. Since John's missing part is 4, Susan's missing part is also 4 because they are the same size. So, Susan found 4 seashells.

1. Write the tens and ones. Complete the statement.



I counted 7 boxes of ten markers and 6 more markers. Now I can fill in my place value chart as 7 tens and 6 ones.

tens	ones		
7	6		

7 tens and 6 ones, or 70 and 6, is 76.

There are ____76___ markers.

2. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

tens ones
5 2

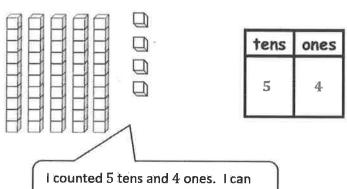
1

52 is made of two parts, 50 and 2. 52 the Say Ten way is 5 tens 2. That means there are 5 tens and 2 ones in 52. b. 98

tens ones

The digit 9 stands for 9 tens, which is the same as 90. The digit 8 stands for 8 ones. So, 9 tens and 8 ones, or 90 and 8, is 98.

1. Count the objects, and fill in the number bond and place value chart. Complete the sentences to add the tens and ones.



50 54

record this on my place value chart.

5 tens and 4 ones is the same as 54. I can break apart 54 as 50 and 4, as shown on my number bond.

Now I can write addition number sentences that match my number bond. I can either start with the part that represents the tens like I did here or start my number sentence with the ones: 4 + 50 = 54. I can switch the addends around, and the total is still the same.

2. Complete the sentences to add the tens and ones.

a.
$$70 + 4 = 74$$

b.
$$6 \text{ tens} + 8 \text{ ones} = 68$$

I can say this number sentence as "70 more than 4 is 74," or "4 more than 70 is 74," or "70 plus 4 is 74," or "7 tens and 4 ones is 74." These are just some of the many different ways to say this number sentence. This helps me think about numbers flexibly.

tens

- 1. Find the mystery numbers. Use the arrow way to show how you know.
 - a. 1 less than 50 is <u>49</u>.

one

0

s	tens	ones
	4	9

There are 5 tens and 0 ones in 50. I can write that in the place value chart on the left. 1 less than 50 is 49. From 50 to 49, I subtracted 1. I can draw an arrow from the first place value chart to the second and write -1 above the arrow. In this case, when I found 1 less, both the tens digit and ones digit changed.

b. 10 more than 50 is <u>60</u>.

nes		tens	ones
0	+10	6	0
	_	+10	+10

10 more than 50 is 60. From 50 to 60, I added 10. I can draw an arrow from the first place value chart to the second and write +10 above the arrow. Only the tens digit changed this time from 5 tens to 6 tens because we added 10 more. The ones digit did not change.

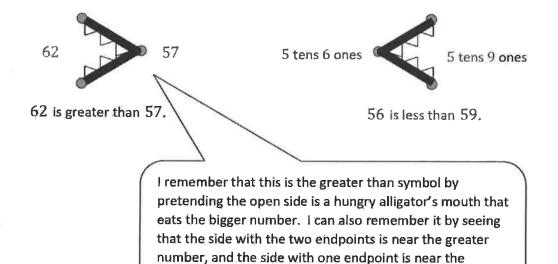
- 2. Write the number that is 1 more.
 - a. 60, **61**
 - b. 79<u>, 80</u>

6

- 3. Write the number that is 10 less.
 - a. 70, 60
 - b. 82, <u>72</u>

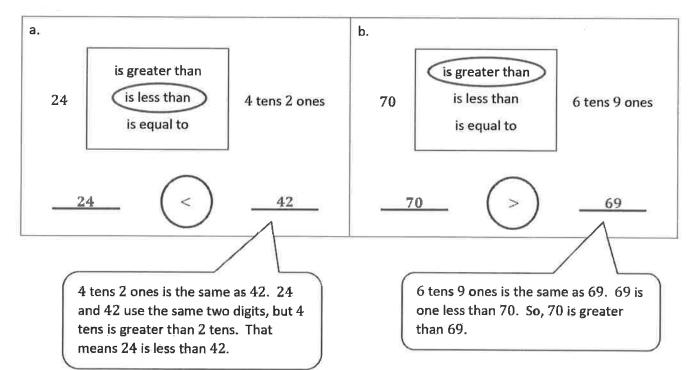
When I find 1 more or 1 less, sometimes only the ones digit changes, and sometimes both the tens and ones digits change.

I need to read the directions carefully to know when I am adding 1 more, 1 less, 10 more, or 10 less.



Circle the correct words to make the sentence true. Use >, <, or = and numbers to write a true statement.

smaller one.



1. Complete the chart by filling in the missing numbers.

0
1
2
3
4
5
6
7
8
9
10

100	
101	
102	
103	
104	
105	
106	
107	
108	
109	
110	

I want to be sure to read these numbers without saying and between one hundred and the ones place unit. I can read these numbers as, "One hundred one, one hundred two, one hundred three." When I say, " $100 \ and \ 1$," it means 100 + 1, but the name of the number is one hundred one.

2. Compare the 2 columns. What pattern do you notice?

The column on the left counts from 1 to 10. The column on the right counts from 100 to 110. The pattern is that at 100 the numbers start over again from 0, only this time you say and write 100 first. So, instead of 1, 2, 3, 4, it is 101, 102, 103, 104.

3. Fill in the missing numbers to continue the counting sequence.

a.

This one is tricky because it is counting down!

b.

This one is tricky because it is counting to a larger unit. It is going from a 2-digit number to a 3-digit number.

1. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

tens	ones
7	4

74 a.

> 74 can be broken apart as 70 and 4, which is the same as 7 tens and 4 ones.

109 b.

tens ones 9 10

10 tens is the same as 100, and 9 more is 109.

- 2. Write the number.
 - 10 tens 5 ones is the number ____

I can read this number as one hundred five, not one hundred and five. One hundred and five describes 100 + 5.

11 tens 8 ones is the number ___

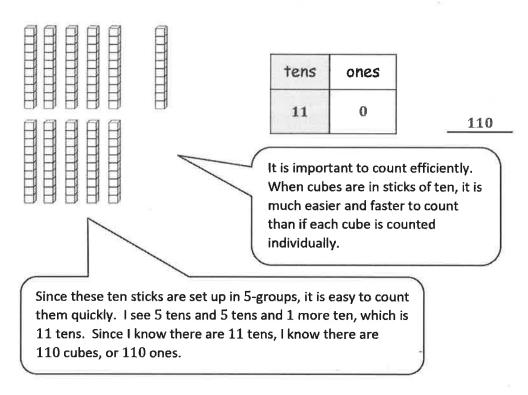
11 tens is the same as 110, and 8 more is 118. I can also show 118 as 10 tens and 18 ones. It is the same number, just written differently.



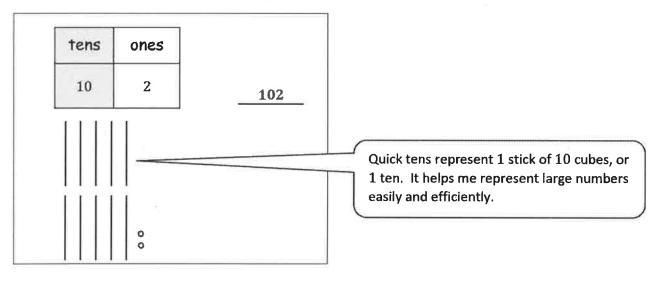
Lesson 8:

Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart.

1. Count the objects. Fill in the place value chart, and write the number on the line.

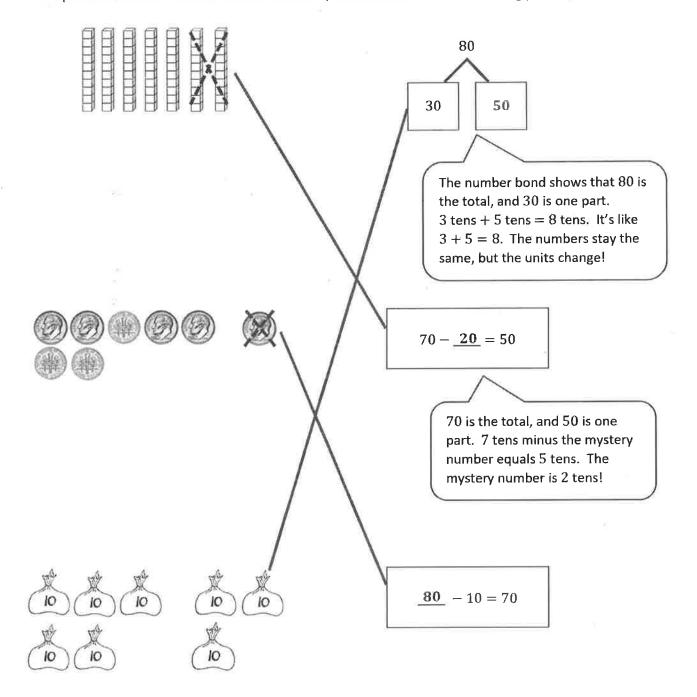


2. Use quick tens and ones to represent the following numbers. Write the number on the line.





1. Complete the number bond or number sentence, and draw a line to the matching picture.



Lesson 10:

Add and subtract multiples of 10 from multiples of 10 to 100, including

2. Count the dimes to add or subtract. Write a number sentence to match the dimes.











$$0 - 30 = 60$$





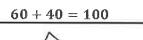






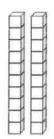


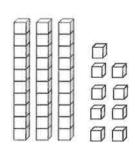


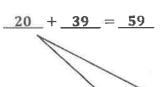


I can think of 6 + 4 = 10, to help me. 6 dimes + 4 dimes equals 10 dimes. 60 + 40 = 100. There is a total of 10 tens!

1. Solve using the pictures. Complete the number sentence to match.







I can add 2 tens and 3 tens first. That's 5 tens. I have 9 ones; the ones don't change.

2. Use a number bond to solve.

$$40 + 30 = 70$$

 $70 + 8 = 78$

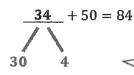
I can break 38 into 30 and 8 with the number bond. I add 40 and 30 first, which is 70, and then add on 8 to make 78.

3. Solve. You may use number bonds to help you.

$$23 + 40 = 63$$



I can start at 23 and count on by tens until I get to 63. I count up four tens: 33, 43, 53, 63. 63 is my total!



I can check my work by drawing a number bond. Since 3 + 5 = 8, I know that 30 + 50 = 80. 34 is the missing part because the total, 84, has 4 ones.

1. Solve.

$$38 + 42 = 80$$

$$2$$

$$40$$

$$38 + 2 = 40$$
 $40 + 40 = 80$

I can think about the ones first. Since 38 is close to 40, I can make the next ten! I use a number bond to break apart 42, and then I add 38 + 2. Then, 40 + 40 = 80.

2. Solve using number bonds. You may choose to add the ones or tens first. Write the two number sentences to show what you did.

a.
$$56 + 43 = 99$$

$$56 + 40 = 96$$

 $96 + 3 = 99$

I can break apart 43 into tens and ones. I can add tens first. So, 56 + 40 = 96. I can't forget to add the 3 ones: 96 + 3 = 99.

b.
$$25 + 45 = 70$$
 20 5

$$45 + 5 = 50$$
 $50 + 20 = 70$

This time, I add ones first. When I break apart 25, I see that I can add 5 to 45 to make 50. That's a friendly number! Then I just add 5 tens + 2 tens = 7 tens, or 70.

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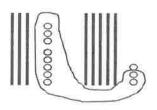
Solve and show your work.

$$49 + 1 = 50$$

 $50 + 23 = 73$

I can think about making the next ten! 49 is close to 50, so I can break apart 24 to add 1 to 49. Then, I add the rest, so 50 + 23 = 73.

2.
$$38 + 53 = 91$$



I can show each number with quick tens and ones. When I look at the ones, I can make another group of ten with 1 leftover. So, I have a total of 9 tens and 1 one, or 91.

$$58 + 20 = 78$$
 $78 + 5 = 83$
2
3

I can start with 58 and add 20. To add 78 + 5, I can break apart 5 into 2 and 3. It's easy to solve in my head because 78 + 2 = 80, and 3 more is 83.

$$60 + 10 = 70$$

 $7 + 8 = 15$
 $70 + 15 = 85$

I can break apart both numbers into tens and ones. I add tens first and then ones. I can combine them, so 70 + 15 = 85.

Solve and show your work.

1.
$$38 + 46 = 84$$
2 44

$$38 + 2 = 40$$
 $40 + 44 = 84$

First, I think about making the next ten! I can break apart 46 and add 2 to 38, which makes 40. Then, I add the rest, so 40 + 44 = 84.

2.
$$26 + 55 = 81$$
20 6

$$55 + 20 = 75$$
 $75 + 6 = 81$
 5
 1

This time, I can start with 55 and add 20. Then, to add 75 + 6, I can break apart 6 into 5 and 1 to make a ten. 75 + 5 = 80, and 1 more is 81.

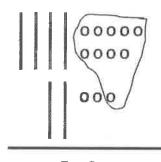
$$60 + 10 = 70$$

 $8 + 7 = 15$
 $70 + 15 = 85$

I can break both numbers apart into tens and ones. I add tens first and then ones. I can combine them, so 70 + 15 = 85.

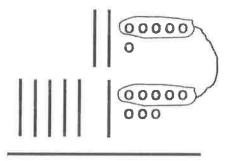
Solve using quick tens and ones drawings. Remember to line up your tens with tens and ones with ones. Write the total below your drawing.

1.
$$49 + 23 = 72$$



49 is 4 tens and 9 ones. 23 is 2 tens and 3 ones. I can line up the tens and the ones to add. I add the ones first. 9 ones and 3 ones is 12 ones. That's 10 and 2. I can circle a new ten and add it to 6 tens. Now I have 7 tens and 2 ones.

2.
$$26 + 68 = 94$$

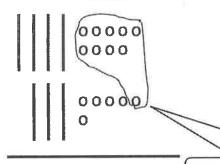


9

I make sure to draw each number with quick tens and ones. When I draw the number 68, I put the 6 tens under the 2 tens, and I put the 8 ones under the 6 ones from 26. Look, my 5-group drawings help me to see 10 ones right away!

Solve using quick tens and ones drawings. Remember to line up your drawings and rewrite the number sentence vertically.

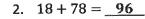
1. 49 + 36 = 85

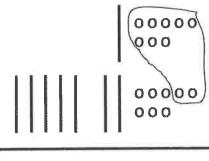


 I can draw 49 as 4 quick tens and 9 ones. So, I write 4 in the tens place and 9 in the ones place. I do the same with 36. I add 4 tens to 3 tens and 9 ones to 6 ones. 9+6=15. That's 1 ten 5 ones. Look at where I record the new ten!

8 5

9 needs 1 from 6 to get to 10. 10 and 5 is 15.





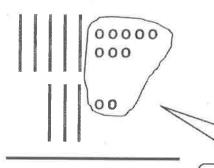
9 6

When I add 8 ones plus 8 ones, I get 16 ones, which is 1 ten and 6 ones. I record the new ten below the second number in the tens place. 1 ten + 7 tens + 1 ten = 9 tens.

8 needs 2 from 8 to get to 10. 10 and 6 is 16.

Solve using quick tens and ones drawings. Remember to line up your drawings and rewrite the number sentence vertically.

1. 58 + 32 = 90



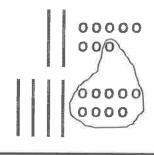
5 8 2 0

I can draw 58 as 5 quick tens and 8 ones. So, I write 5 in the tens place and 8 in the ones place. I do the same with 32. I add 5 tens to 3 tens and 8 ones to 2 ones: 8 + 2 = 10. That's 1 ten 0 ones. Look at where I record the new ten!

0 8 needs 2 to make 10. Now there are 0 ones left.

2. 28 + 49 = 77

9



2 8 9 7

7

When I add 8 ones plus 9 ones, I get 17 ones, which is 1 ten and 7 ones. I record the new ten below the second number in the tens place. 2 tens + 4 tens + 1 ten = 7 tens.

9 needs 1 from 8 to get to a new 10. Now there are 7 tens and 7 ones.

Lesson 17:

Add a pair of two-digit numbers when the ones digits have a sum greater than 10 with drawing. Record the new ten below.

Use any method you prefer to solve the problems below.

I want to draw quick tens and ones to help me solve this problem. The lines represent my tens. The circles represent my ones. I know it is important to carefully line up the tens to tens and the ones to ones.

2.

6.7

$$57 \xrightarrow{+20} 77 \xrightarrow{+3} 80$$

I want to use the arrow way as my strategy. I can break apart 23 into 20 and 3. I can add 20 first and then 3.

48 + 15 = 63

$$48 + 2 = 50$$
 $50 + 13 = 63$

48 is so close to 50. I can use the make ten strategy! 48 needs 2 more to make the next ten, 50. I can break apart 15 into 2 and 13. First I can add 48 + 2 = 50. Then I can add the rest, 50 + 13 = 63.

Use any strategy you prefer to solve the problems below.

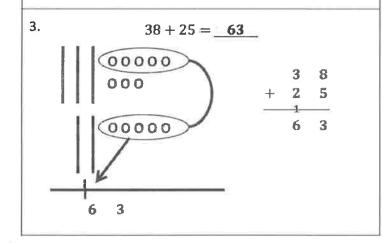
$$60 + 30 = 90$$

$$4 + 3 = 7$$

$$90 + 7 = 97$$

2.
$$37 + 35 = 72$$
 $30 5$

$$37 \xrightarrow{+30} 67 \xrightarrow{+5} 72$$

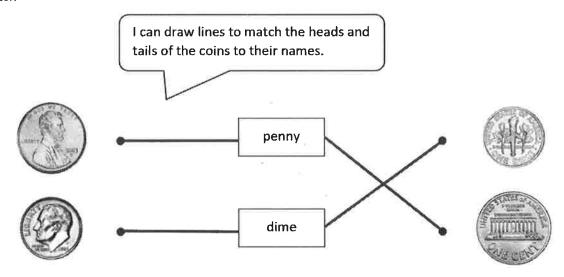


I can use double number bonds and break apart BOTH numbers. I can add the tens to the tens, 6 tens + 3 tens = 9 tens, and the ones to the ones, 4 ones + 3 ones = 7 ones. Then, I add all my tens and ones together, 9 tens + 7 ones = 97 ones.

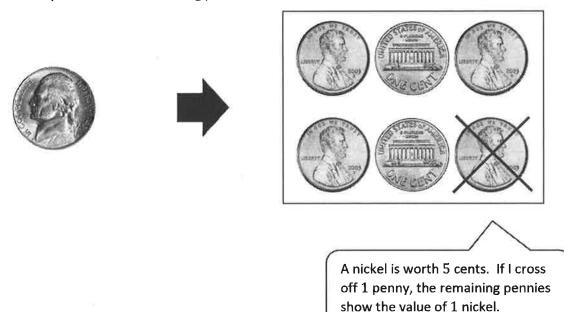
I might want to break apart just one of the numbers. If I break 35 into 30 and 5, I can add 30 first and then add 5. The arrow way is one way I can show my thinking.

Another strategy I can use is drawing quick tens and ones. 8 ones + 5 ones = 13 ones. I can bundle 10 of the ones to make 1 ten. I still have 3 ones. 3 tens + 2 tens + 1 ten = 6 tens. There are 6 tens and 3 ones!

1. Match

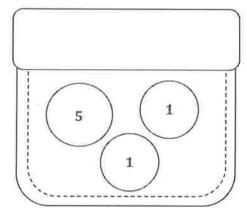


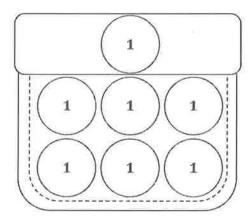
2. Cross off some pennies so the remaining pennies show the value of the coin to their left.



3. Marcus has 7 cents in his pocket. Draw coins to show two different ways he could have 7 cents.

Marcus has 7 cents if he has 1 nickel and 2 pennies. He also has 7 cents if he has 7 pennies.





4. Solve. Draw a line to match the number sentence with the coin or coins that give the answer.

A dime is worth 10 cents. I can draw a line to match!

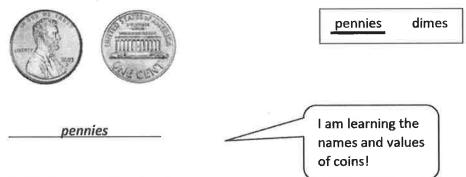
 $1 \operatorname{cent} + 1 \operatorname{cent} = \underline{2} \operatorname{cents}$

 $15 \text{ cents} - 5 \text{ cents} = \underline{10} \text{ cents}$





1. Use the word bank to label the coins.



2. Write the value of each coin.

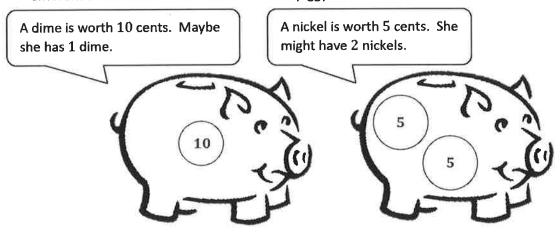
The value of 1 penny is $\underline{1}$ cent.

3. Your papa said he will give you 1 dime or 1 penny. Which would you take, and why?

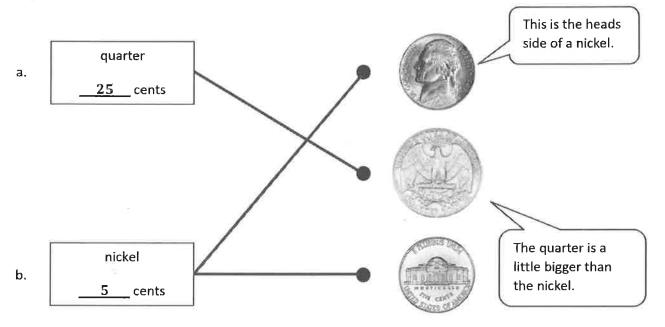
I would take the dime because it is more money!

I would take 1 dime because it is worth 10 cents. A penny is only worth 1 cent.

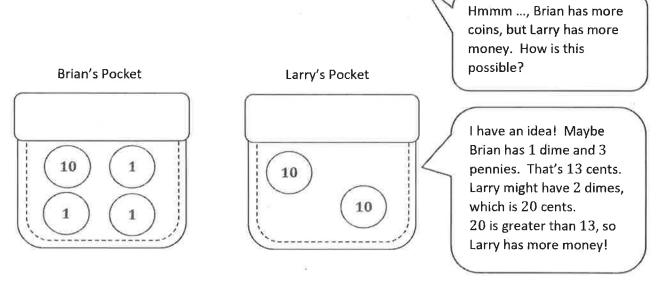
4. Kira has 10 cents in her piggy bank. Which coin or coins could be in her bank? Draw to show two different sets of coins that could be in Kira's piggy bank.



1. Match the label to the correct coins, and write the value. There may be more than one match for each coin name.



2. Brian has 4 coins in his pocket, and Larry has 2 coins. Larry has more money than Brian. Draw a picture to show the coins each boy might have.



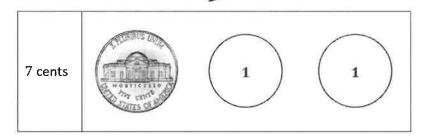


Lesson 22:

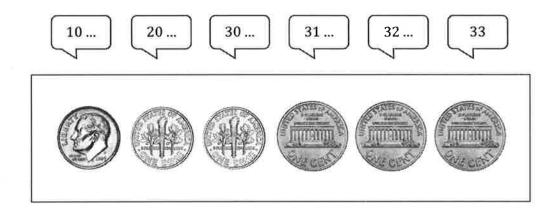
Identify varied coins by their image, name, or value. Add one cent to the value of any coin.

1. Add pennies to show the written amount.

A nickel is worth 5 cents. I can count on from 5. Fililiive, 6, 7. I counted on 2 more, so I draw 2 pennies.



2. Write the value of the group of coins.



33 cents

Find the value of each set of coins. Complete the place value chart.
 Write an addition sentence to add the value of the dimes and the value of the pennies.

 $1 \mbox{ dime} = 1 \mbox{ ten}.$ There are $10 \mbox{ dimes},$ so there are $10 \mbox{ tens}.$

1 penny = 1 one.

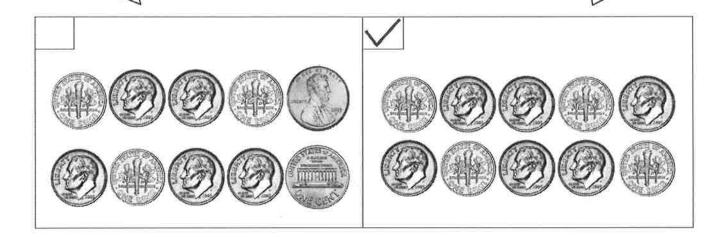


10 tens + 1 one is the same as 100 + 1.100 + 1 = 101 2. Check the set that shows the same amount. Fill in the place value chart to match 100 cents.

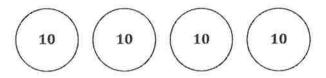
There are 8 dimes and 2 pennies, so there are 8 tens and 2 ones: 80 + 2 = 82. This set shows 82 cents.

tens	ones
10	0

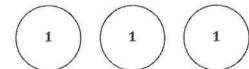
There are 10 dimes and 0 pennies, so there are 10 tens and 0 ones: 100 + 0 = 100. This set shows 100 cents.



3. Draw 43 cents using dimes and pennies. Fill in the place value chart to match.



tens	ones		
4	3		



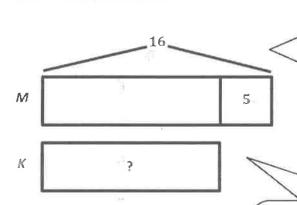
I can make 43 cents with 4 dimes and 3 pennies. That's 4 tens and 3 ones!

Read the word problem.

Draw a tape diagram or double tape diagram and label.

Write a number sentence and a statement that matches the story.

1. Maria used 16 beads to make a bracelet. Maria used 5 more beads than Kim. How many beads did Kim use to make her bracelet?



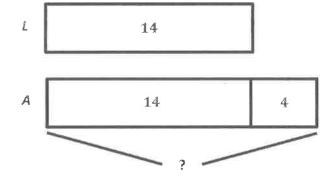
I can draw a double tape diagram to compare Maria's and Kim's beads. I can draw Maria's and Kim's tapes the same length. Since I know they don't have the same amount of beads, I ask myself, Who has more? Maria! She has 5 more beads than Kim. I'll add more to Maria's tape and label it with 5 because she has 5 more beads than Kim.

$$16 - 5 = \boxed{11}$$

Kim used 11 beads.

I can draw arms to include both parts of Maria's tape because the whole is 16. The first part of Maria's tape is equal to Kim's, so if I figure out Maria's first part, I'll know Kim's tape, too!

2. Leo picked 14 strawberries. Leo picked 4 fewer strawberries than Agnes. How many strawberries did Agnes pick?



Agnes picked 18 strawberries.

I slow down and read every part of the problem carefully. If Leo picked 4 fewer strawberries than Agnes, then Agnes has 4 more than Leo! This is an addition problem, not subtraction!

Lesson 25:

Solve compare with bigger or smaller unknown problem types.

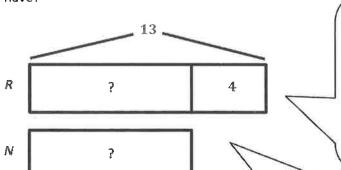
Read the word problem.

Draw a tape diagram or double tape diagram and label.

Write a number sentence and a statement that matches the story.

1. Ruben has 13 markers. Nashrah has 4 fewer markers than Ruben. How many markers does Nashrah

have?

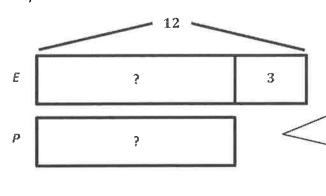


I can draw a double tape diagram with equal tapes for both Ruben and Nashrah. Since I know they don't have an equal amount of markers, I ask myself, who has more? Since Nashrah has fewer markers, and I know that Ruben has 4 more markers, I'll add more to Ruben's tape and label it with 4 since he has 4 more markers.

Nasrah has 9 markers.

I can draw arms to show Ruben's total, which is 13 markers. The first part of Nashrah's tape is equal to Ruben's, so if I figure out Ruben's first part, I'll know how many markers Nashrah has. I can use subtraction to solve.

2. Emil found 12 leaves on the playground. He found 3 more leaves than Payton. How many leaves did Payton find?



Payton found 9 leaves.

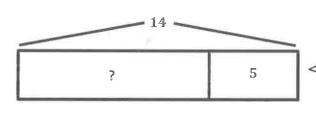
I must read every part of the problem carefully. Sometimes *more* doesn't mean to add! Since Emil found 3 more leaves than Payton, I have to subtract to find out how many leaves Payton found.

Read the word problem.

Draw a tape diagram or double tape diagram and label.

Write a number sentence and a statement that matches the story.

1. Some children were playing in the gym. 5 children came to join, and now there are 14 children. How many children were in the gym in the beginning?



This problem feels tricky because I don't know how many children were playing at first.

That's my unknown! It helps when I read one sentence at a time and draw.

9 children were in the gym in the beginning.

My drawing shows that I know the whole and one part. I can use subtraction to find out how many children were playing in the beginning. Or, I could have used addition to solve: $__+5=14$.

2. Peter biked for 11 minutes. Belle biked for 7 minutes. How much shorter in time was Belle's bike ride?

?



B

7

Belle's bike ride was 4 minutes shorter.

Since I am comparing this time, I draw a double tape diagram. Since Peter biked for more minutes, his tape is longer than Belle's. I can use addition to solve for the missing part, which is 4 minutes.

1. Teach a family member some of our counting activities. Check all the activities you do together.

1 1	Нарру	Count	hv	Anac
1 1	ilappy	Count	υy	Ulics.

- X Happy Count by tens.
- X Count by ones the Say Ten way.
- Count by tens the Say Ten way. First, start at 0, and then start at 7.
- Movement counting—count while doing squats, arm rolls, jumping jacks, etc.

I can practice these fun math games with a family member or friend to keep my math skills sharp over the summer.

2. Write the numbers from 96 to 115.

96	97	98	99	100	101	102	103	104	105
106	107	108	109	110	111	112	113	114	115

3. Count backward by tens from 82 to 2.

82, 72, 62, 52, 42, 32, 22, 12, 2

Practicing a math game like Happy
Counting throughout the year has
helped me count forward and backward.
Look, I can count past 100 by ones and
backward by tens! I couldn't do these
two things when I started first grade.
Now I can do them easily.

Teach a family member your favorite math game during our fluency celebration. Describe what it was like to teach the game. Was it easy? Hard? Why?

I taught my mom how to play the math game Missing Part: Make Ten. I am used to learning how to play the math games from my teacher and then playing with my friends. Teaching my mom was fun, but it was a little bit hard. Even though I know how to play the game, I sometimes forgot to explain some of the important parts to her.

I can pick a math game from one of our math centers and teach it to one of my family members. I know how to play the game by myself, but sometimes you learn something by teaching it to someone else. It helped me think about making ten when I had to show my mom what we needed to do.

What did you do in math class today?

Today I decorated a math folder for my math summer packet. I decorated my folder with drawings of all the things I learned in math this year. I drew addition and subtraction number sentences, 5-group drawings, and number bonds. I also drew quick tens, a place value chart, and different two- and three-dimensional shapes. These are just some of the many things I learned in math this year. I will try to practice my summer packet everyday with one of my family members so that I can be ready for math in second grade!

My summer packet includes

- A Lesson 30 Summer Packet.
- Single-sided numeral or 5-group cards.
- 5 Core Fluency Sprints and some other Grade 1 Sprints.
- Core Fluency Differentiated Practice Sets.

