Draw the balloons.

John had	Sue gave him	How many balloons
4 balloons.	3 balloons.	does John have now?

ANSWER:

John	Sue	How Many
?0?0	505	??????

COMMENTS & EXTENSIONS: Challenge students to write their own word problems, exchange them, and solve them by drawing pictures.



Adding and Subtracting Within 100 ■ Lesson 1

Write the addition sentence shown on the chart.



Try This

Chad has 36 comic books in his collection. He buys 13 more. How many comic books does Chad have now?

Use Base Ten Blocks to make the model shown. Count on to solve the problem. Complete the equation.

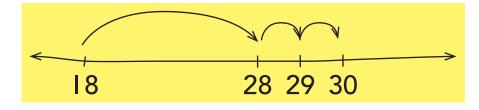
36

$$36 + 13 = 49$$



Use Base Ten Blocks to model. Count on to solve. Draw your model. Complete the equation.

I. Mr. Ruiz has 18 paper cups for the class. Ms. Jones gives him some more cups. Now, Mr. Ruiz has 30 cups. How many cups did Ms. Jones give him?



Drawings will vary. Children could show 18 with 1 ten rod, 8 units; an additional 12 can be modeled by 1 ten and 2 units, or children may sketch a number line.

$$18 + \frac{12}{2} = 30$$



Count on or count back to solve. Draw a model. Complete the equation.

2. Remi delivers milk. He delivers some milk bottles in the morning. He delivers 27 bottles in the afternoon. Remi delivers a total of 42 bottles of milk. How many bottles did he deliver in the morning?

Drawings will vary.

$$_{15}$$
 + 27 = 42

3. There are 47 pens in a box. 23 pens are taken out of the box. How many pens are still in the box?

> Drawings will vary. Children might count on or count back with rods and units.

$$47 - 23 = 24$$





Draw to model the problem. Solve.

4. There are 42 people at the park. 37 people leave. How many people are still at the park?

> Drawings will vary. Children might use a number line to count on or count back with or without rods and units.

5. 56 children are taking a test. Some children finish the test and leave the room. Then there were 22 children still taking the test. How many children finished the test and left?

> Drawings will vary. Children might count on or count back with or without rods and units.

$$56 - _{34} = 22$$





Use any strategy you choose to solve. Write an equation that solves the problem.

6. Some crayons are on the art table in the morning. The class comes in and takes 25 crayons off the table. There are now 29 crayons on the art table. How many crayons were on the art table in the morning?

Answers will vary. Children might write 54 - 25 = 29 or 25 + 29 = 54



_____ crayons



Use Base Ten Blocks to build the model.

I. Liam has 22 books. His sister has 12 books. How many books do they have all together?

Count on to add: 22, 32, 33, 34.

Use Base Ten Blocks. Draw your model. Count on or count back to solve.

2. There are 37 paper plates at the school picnic. Latoya brings some more paper plates. Now there are 60 paper plates at the picnic.



How many plates did Latoya bring?

________ plates



Draw to model the problem. Solve.

3. The math teacher has 42 erasers in a drawer. She gives out 20 erasers. How many erasers does she have left in the drawer?

Drawings will vary; look for 4 ten rods and 2 units - 2 ten rods.

²² erasers

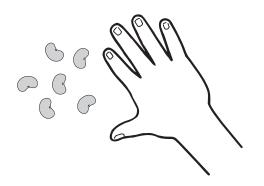
Complete the equation and solve the problem.

4. 72 photos are in a book. Some photos are taken out of the book. There are now 22 photos in the book. How many photos were taken out of the book?

$$72 - \frac{50}{} = 22$$

_____ photos

Mike started with 9 beans and then covered some.



How many beans are covered?

ANSWER: 3 beans

COMMENTS & EXTENSIONS: Teachers can learn a lot about students' thinking by asking them to think out loud. How will students solve this one? Will they subtract 6 from 9 or start at 6 and count up to 9?



Try This

- Use counting on or counting back to solve each problem
- Use Base Ten Blocks to model each problem There are 22 grape juice boxes and 14 orange juice boxes in the cupboard. How many juice boxes are in the cupboard?

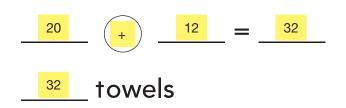


Count on: 22, 32, 33, 34, 35, 36.

There are **36** juice boxes in the cupboard.

Write an equation that matches the problem and solve.

1. There are 20 blue towels and 12 white towels in the closet. How many towels are in the closet?



2. Maggie draws 25 hearts and 14 stars on a poster. How many hearts and stars did Maggie draw on the poster?

- ³⁹ hearts and stars
- **3.** Winston has 32 stickers. How many can he place in his sticker book and how many can he place on a poster?

Make a drawing to model the problem and solve.

4. There are 50 prizes at the fair. 23 are stuffed animals and the rest are video games. How many prizes are video games?

> 27 video games; drawing should show either 50 - 23 = ? or 23 + ? = 50

Draw to model the problem. Write a subtraction equation to match. Solve.

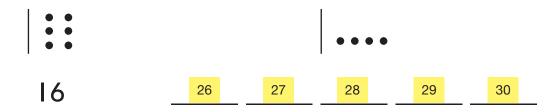
5. 52 blankets are at the store. Some blankets are on shelves. 40 blankets are in boxes. How many blankets are on shelves?



Name

Use Base Ten Blocks to model. Write the numbers as you count on from 16. Solve.

I. There are 16 baseballs and 14 footballs in a box. How many balls are in the box?



$$16 + 14 = _{30}$$
 balls

Use Base Ten Blocks to solve the problem.

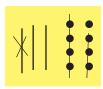
2. The bush has 25 red flowers and 14 white flowers. How many flowers does the bush have? _______ flowers

Make a drawing to model the problem. Complete the equation.

3. Lucy has 36 pennies. How many can she put in her wallet and how many can she put in her pocket?

Make a drawing to model the problem. Solve.

4. The teacher has 38 snack bags on her desk. 17 are filled with grapes the rest are filled with popcorn. How many snack bags are filled with popcorn?



38 snack bags – 17 bags of grapes = 21 bags of popcorn

Model the problem. Write the equation that matches. Solve.

5. Karen has 42 books are on a shelf. 23 of the books are history books. The rest are science books. How many science books are on the shelf?

42 - 23 = 19 or 23 + 19 = 42

science books

3

Give me a number that is

- a. greater than 4 and less than 10.
- **b.** greater than 10 and smaller than 15.
- c. greater than 4 and smaller than 6.

ANSWER: a. Sample: 6; b. Sample: 14; c. Sample: 5

COMMENTS & EXTENSIONS: Here, again, are problems requiring students to keep in mind several things at once.

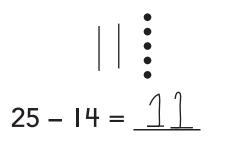
Draw a number line to show the numbers that work for each of the three activities.



Try This

There are 14 cans of chicken soup at the store. There are 25 cans of tomato soup. How many more cans of tomato soup are at the store than chicken soup?

Use Base Ten Blocks to make the model shown. Complete the equation to solve.





Use Base Ten Blocks to solve the problem. Write an equation that matches the problem and solve.

I. Li has 16 crayons. Ben has 28 crayons. How many fewer crayons does Li have than Ben?

2. Marlene brings 17 more paper hats to the party than Eli. Eli brings 10 paper hats. How many paper hats does Marlene bring to the party?

Make drawing. Write an equation that matches the problem and solve.

3. Leo watches 37 fewer minutes of television than his sister. Leo's sister watches television for 65 minutes. How many minutes did Leo watch television?

Children should show a configuration of 65 Base Ten Blocks with 37 crossed out.

$$\begin{array}{c|c}
\hline
 & & & \\
\hline
 & & \\$$

Choose your own strategy to solve the problem.

4. Hollis has 20 fewer books than Quinn. Hollis has 10 books. How many books does Quinn have?

How many books does Hollis have?

10 books

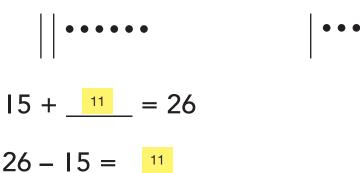
Does Quinn have more books or fewer books than Hollis?

Write an equation that matches the problem and solve.

ooks books

Use Base Ten Blocks to model, Solve.

1. There are 15 boxes of pasta at the store. There are 26 jars of sauce at the store. How many more jars of sauce are there than boxes of pasta?



Use Base Ten Blocks. Draw your model. Solve.

2. On Tuesday, the school baked 12 more slices of apple pie than on Monday. On Monday, the school baked 32 slices of apple pie. How many slices of apple pie were baked on Tuesday?



$$12 + 32 = _{44}$$
 slices of pie

3

Draw to model. Write an equation. Solve.

3. Gino studies for 25 fewer minutes than Ingrid. Ingrid studies for 50 minutes. How many minutes did Gino study?

Drawing should represent 50 Base Ten Blocks (5 rods) with 25 (2 rods and 5 units) crossed out or 4 rods and 10 units with 2 rods and 5 units crossed out.

$$\frac{50}{100} - \frac{25}{100} = \frac{25}{100}$$
 minutes

Choose any strategy to solve. Then write an equation that matches.

4. Loretta has 14 more pennies then Ricardo. Loretta has 65 pennies. How many pennies does Ricardo have?

Children may use a drawing or blocks to represent the problem.

$$65 - 14 = 51$$
 pennies

4

- **a.** Alexis knows that 4 plus 4 is 8. How can she figure out 4 plus 5?
- **b.** Jose knows that 4 plus 5 is 9. How can he figure out 14 plus 15?

ANSWER: a. Sample: 5 is 1 more than 4, so 4 plus 5 is one more than 4 plus 4, so 4 plus 5 is 9; b. Sample: 14 and 15 are each 10 more than 4 and 5, so 14 plus 15 is 20 more than 4 plus 5, so 14 plus 15 is 29.

COMMENTS & EXTENSIONS: In exercises like these, children use what they know about one concept and relate it to another concept.



Try This

There were 4 green crayons and 5 white crayons on the table. 7 more crayons are placed on the table.

How many crayons are on the table in all?

Use Base Ten Blocks to model the problem.



Step I

4 + 5 = 9



Step 2

9 + 7 = 16

Use Base Ten Blocks. Draw your model. Complete the equations.

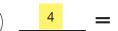
1. There are 9 bananas on the counter. Karen eats 3 bananas. Karen's mother places 4 more bananas on the counter. How many bananas are on the counter now?

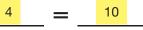
> Answers will vary, but might show 9 objects with 3 crossed out, and an additional group of 4.











bananas



2. There are 26 white beans and some red beans are on the counter.

There are 36 beans in all.

20 beans are used for soup. How many beans are left?

Answers will vary; might show 2 tens rods and 6 units, 1 more ten rod, then 2 rods crossed out.

$$\frac{26}{10} + \frac{10}{10} = 36$$

$$36 - 20 = 16$$

So,
$$26 + 10 - 20 = 16$$

Use any strategy to solve. Complete the equations.

3. 17 children are in a classroom. Some leave. Then there are 8 children in the classroom. 5 more leave. How many are children now in the classroom?

$$17 - 9 = 8$$
 $8 - 5 = 3$

$$8 - 5 =$$
 3

So,
$$17 - 9 - 5 = 3$$

3 children

Use any strategy to solve. Write the equations.

4. Charles has II stickers. Fred has 24 more stickers than Charles. How many stickers do they have in all?

$$11 + 24 = _{35}$$

Fred has <u>35</u> stickers. Charles has <u>11</u> stickers.

How many in all?



Use Base Ten Blocks to model. Complete the equations to solve.

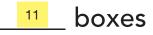
I. There are 4 red pens and 3 blue pens on the table. Lee takes away 2 pens. How many pens are on the table now?

Use Base Ten Blocks to model the problem. Draw your model.

2. There are 9 boxes in the room. 3 boxes are moved out of the room. Then 5 more boxes are moved into the room. How many boxes are in the room now?

Drawings will vary; look for 3 squares to be X'd out, and then 5 more drawn in.

Complete the equations to solve the problem.



Write the equations to solve the problem.

3. Some blueberry bars and 6 apple bars are in the picnic basket. There are 11 bars in all. Cindy eats 2 blueberry bars. How many blueberry bars are left?

Step 2: ______

blueberry bars are left

4. There are 10 boxes of wheat cereal on the shelf. There are 12 boxes of corn cereal. 2 more boxes of corn cereal are put on the shelf. How many more boxes of corn cereal are there than wheat cereal now?

Step 2: ______

more boxes of corn cereal