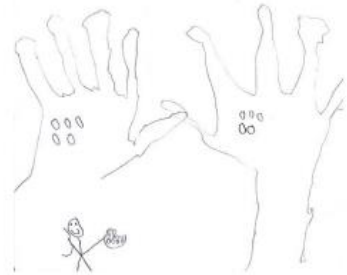


## Application Problems

### K.5.1

Marta loves to share her peanuts at recess. She counted 10 peanuts into the hands of her friend Joey. Draw a picture of the peanuts in Joey's hand.



### K.5.2

Lisa counted some sticks into one pile of 10. She counted 5 other sticks into another pile. Draw a picture to show Lisa's piles of sticks.

Note to the teacher: For now, just focus on the pile of 10 sticks and the pile of 5 rather than composing the teen number.

(Bonus: Have early finishers draw Lisa's piles on another day when she made one pile of 10 sticks and one pile of 8 sticks!)

### K.5.3

Each gingerbread man got 10 sprinkles as buttons with 2 sprinkles to show the eyes. Draw to show the 12 sprinkles as 10 buttons and 2 eyes.

### K.5.4

At recess, 17 students were playing. 10 students played handball while 7 students played tetherball. Draw to show the 17 students as 10 students playing handball and 7 students playing tetherball.

Note: In this application problem, students are not adding to solve, but rather they are being guided to decompose the 17 as 10 ones and 7 ones. This is not asking "how many," but rather separating 17 into 10 ones and some ones (K.NBT.1). The problem is not asking them to count the total but is instead telling them the total.

### K.5.5

Pat covered 16 holes when playing the flute. She covered 10 holes with her fingers on the first note she played. She covered 6 holes on the next note she played. Draw the 10 holes. Draw the six holes. Use your drawing to count all the holes the Say Ten way.

Note: The focus here is on counting to find the total rather than on addition. They are also seeing the embedded 10 and 6 as they count to 16 the Say Ten way.

### **K.5.6**

There are 18 students, 10 girls and 8 boys. Show the 18 students as 10 girls and 8 boys.

Note: Remember that the focus is on counting all to find the total rather than counting on or addition.

### **K.5.7**

Gregory drew 10 smiley faces and 5 smiley faces. He put them together and had 15 smiley faces. Draw the 15 smiley faces as 10 smiley faces and 5 smiley faces. Then draw 15 with Hide Zero cards when the zero is hiding and when the zero is not hiding.

Note: Word problems involving quantities above 10 begin in Grade 1.

Many of the application problems in Module 5 are simply decomposition and composition experiences (K.NBT.1). Note that the problems do not ask, “How many in all?” or “How many?” Also note that there is no unknown in problems of this type.

### **K.5.8**

Peter drew a number bond of 13 as 10 and 3. Bill drew one, too, but he switched around the 10 and 3. Show Bill and Peter’s number bonds. Draw a picture of thirteen things as 10 ones and 3 ones. Explain your thinking to your partner about what you notice about the two number bonds.

### **K.5.9**

A Pre-Kindergarten friend named Jenny drew 15 things with 1 chip and 5 more chips. Draw 15 things as 10 ones and 5 ones and explain to your partner why you think Jenny made her mistake

### **K.5.10**

Ms. Garcia is painting her fingernails. She has painted all the nails on her left hand except her thumb. How many more nails does she need to paint? How many will she have left to paint after she paints her left thumb? Draw a picture to help you.

### **K.5.11**

Mary has 10 toy trucks. She told her mom she likes to spread them out on the floor. She said she doesn’t like to put them away neatly in the little toy box because then there are fewer toys. Can you draw a picture to prove to Mary that the number of toy trucks is the same when they are all spread out as when they are in the little toy box?

### **K.5.12**

Peter was sitting at lunch eating his French fries. He counted 8 left on his plate. He ate 1 French fry. He ate another French fry. Then he ate another French fry. How many French fries did Peter have then?

**K.5.13**

Vincent's father made 15 tacos for the family. Show the 15 tacos as 10 tacos and 5 tacos. Draw a number bond to match.

**K.5.14**

Eva put her 12 cookies on her cookie sheet in 2 rows of 6. Draw Eva's cookies. Show her 12 cookies as a number bond of 10 ones and 2 ones and with your Hide Zero cards. Then, find and circle the 10 cookies that are inside the 12 cookies.

Have the students explain how the parts of the number bond match the parts of their drawing and the Hide Zero cards with a partner.

**K.5.15**

Materials: (S) Donut template, cubes, pencil

Mr. Perry is decorating donuts. He puts 14 little dots of chocolate in a circle. Show him an idea about how to put the 14 dots in a circle on his donut. Use your cubes first and then draw the chocolate dots on. Show the total number of dots of chocolate with a number bond and your Hide Zero cards.

**K.5.16**

Materials: (S) Handprint cards

The students in Pre-Kindergarten are making handprints. 7 students are putting their handprints on a poster board. How many fingers will show in the poster? Use your handprint cards to help you find out.

**K.5.17**

Sammy's mom has 10 apples in a bag. Some are red and some are green. What might be the number of each color apple in her bag? There is more than one possible answer. Show your answers with number bonds. Label the parts as R and G.

**K.5.18**

Susan is putting 9 flowers in 2 vases. Draw a picture to show a way she might do that. Make a number bond and a number sentence to match your idea. (Bonus: See if you can think of another way to put the flowers in the vases.)

When students have finished, have them compare their work with another student. Is their way of showing the flowers the same? Why or why not? How is the flower problem similar to the apple problem from yesterday?

**K.5.19**

The light is out, and it's dark. Peter knows that he left 7 blue and green beads for his crafts on his desk. But he can't see how many are blue or how many are green in the dark! Draw a picture to show what the colors of his beads might be when he turns on the light.

When students have finished, have them compare their work with another student. Is their way of showing the beads the same? Why or why not? How is this problem like our problems in previous lessons with the flowers and the apples?

**K.5.20**

Each student got 6 colored pencils and 4 regular pencils. How many pencils did each student get? Draw a picture, a number bond, and write a number sentence, too.

**K.5.21**

Peter saw 8 puppies at the pet store in a cozy cage. While he was watching them, 2 hid in a little box. How many puppies could Peter see then? Draw a picture and write a number bond and number sentence to match the story.

**K.5.22**

Lisa has 5 pennies in her hand and 2 in her pocket. Matt has 6 pennies in his hand and 2 in his pocket. Who has fewer pennies, Lisa or Matt? Who has more pennies? How do you know?