## Student Guide

## Using Picture Graphs (SG pp. 13-14) Questions 1-13

I. A. ${ }^{*} 24$ students
B. * Students can skip count by 3 s or use repeated addition to find the number of students who have a dog.
2. A.* 3 students
B. * Since there is only one symbol on the graph and each symbol is equal to 3 students, there are 3 students who have a bird.
3.* 12 students have a cat; 15 students have a fish 4.*21 students
5.* One possible answer: Dogs will have the greatest number. Since most of the students in their classroom have a dog as a pet, it is reasonable to think that more students will have a dog as a pet in the other classroom.
6. 16 letters
7. Answers will vary.
8. Answers will vary. For example: Mila, John, Roberto, and Kathryn;
Number sentence: $4+4+7+7=22$
9. A. 16
B. 9
C.

10. Jay and Joanie could have turned over a 4 and a 9 or a 6 and a 7 .
II. 5 navy beans

I2. Shannon pulled twenty-seven beans. She pulled seventeen pinto beans, three lima beans, and seven navy beans.
13.* Answers will vary. Students need only find an estimate.
$20+20+10+20+5=75$ animals is an efficient estimate.


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Use the Picture Graphs pages in the Student Activity Book to practice drawing, reading, and using picture graphs.

## A Sample of Problems

Show or tell how you solve each problem.
6. Alex wants to print name cards for the four students in his group. The other members of his group are Beth, Karl, and Todd. How many letters will he print?
7. Make a list of the first names of five students from your class. How many letters are in this list?
8. Choose some first names from your class so that the total number of letters is twenty-two. Write a number sentence for this problem.
9. A. Four students are playing a game of Number Line Target. The target number is 25 . Alex covered an eight. Jacob covered a five. Then Keenya covered a three. What is the sum of their numbers?
B. Now it is John's turn. What number does he need to cover to win the game?
C. Sketch a number line and show each move for this game.
10. Kathy, Beth, Jay, and Joanie were playing Number Line Target. They each covered one number. The sum of their numbers was 26 . Kathy covered a 5. Beth covered an 8. What could Jay and Joanie have covered?
11. Professor Peabody took a sample of sixteen beans from a container. He recorded two lima beans and nine pinto beans. He forgot to record He recorded two lima beans and nine pinto beans. He forgot to rec
the number of navy beans before he dumped them back into the the number of navy beans before he dumped them back
container. How many navy beans were in his sample?
12. In Rachel's sample there were fifteen pinto beans, four lima beans, and seven navy beans. Shannon said, "I pulled the same number of navy beans as you. I have two more pinto beans than you. I have one less lima bean than you." How many beans did Shannon pull?
13. Betty Robinson and her parents collected data on a small sample of animals. They saw 22 spider monkeys, 18 squirrels, 9 river otters, of animals. They saw 22 spider monkeys, 18 squirrels, 9 river
20 armadillos, and 5 jaguars. About how many animals are in the sample?

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## *Answers and/or discussion are included in the lesson.

