

Data Detectives

Read, organize, and solve with category data.

GRADE 3 • TEKS 3.8

3.8 "Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data..."

NAME _____

DATE _____

COUNT AND COMPARE

Use a table or graph to count each category. Read the key or scale, then add or subtract the counts you need. Check that your answer matches the data.

WORKED EXAMPLE

At the school garden, teams picked Sunflowers 4, Tomatoes 8, and Beans 12. The bar graph scale counts by 4. How many more beans than sunflowers were picked?

1. Read the two counts: 12 and 4.
2. Subtract: $12 - 4 = 8$.
3. Check: $4 + 8 = 12$.

Answer: 8 more beans

PRACTICE 5 problems

- 1** At a book fair, the table shows Space 7, Nature 5, and Sports 9. Which category has the most books?

ANSWER _____

- 2** A lunch poll shows Apples 2, Pears 5, and Melons 7. How many more students chose melons than apples?

ANSWER _____

- 3** A pet survey uses one dot for each student. Fish: ●●●●● Bird: ●● Lizard: ●●●●●● How many students chose fish or birds?

ANSWER _____

- 4** At recess, students chose tag, chalk, or jump rope: tag, chalk, tag, jump rope, chalk, tag, tag, jump rope, tag. Make a frequency table.

ANSWER _____

- 5** A voting graph uses each | for 2 votes. Movie: ||| Game: ||||| Science show: ||||| How many votes are shown altogether?

ANSWER _____

APPLY IT Show your work

- 1** The animal shelter adoption board shows Cats 15, Dogs 11, and Rabbits 7. How many more cats and dogs were adopted altogether than rabbits?

WORK SPACE

ANSWER _____

- 2** At game night, each ★ = 2 players. Puzzle: ★★★ Dance: ★★★★★ Relay: ★★★★★★★ How many players chose an activity altogether?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A robotics club survey shows Building 17, Drawing 13, and Coding 19. The club will plan stations for the two categories with the greatest vote counts. Which categories are they? How many votes do they have altogether, and how many more is that than Drawing?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	At a book fair, the table shows Space 7, Nature 5, and Sports 9. Which category has the most books?	Sports, 9 books.
2	A lunch poll shows Apples 2, Pears 5, and Melons 7. How many more students chose melons than apples?	5 more students.
3	A pet survey uses one dot for each student. Fish: ●●●●● Bird: ●● Lizard: ●●●●●● How many students chose fish or birds?	7 students.
4	At recess, students chose tag, chalk, or jump rope: tag, chalk, tag, jump rope, chalk, tag, tag, jump rope, tag. Make a frequency table.	Tag: 5 Chalk: 2 Jump rope: 2
5	A voting graph uses each for 2 votes. Movie: Game: Science show: How many votes are shown altogether?	30 votes.

PART 2 • APPLY IT

- 19 more animals.** Add cats and dogs: $15 + 11 = 26$. Then subtract rabbits: $26 - 7 = 19$.
- 30 players.** There are 15 stars altogether. Multiply 15 by 2 players for each star.

CHALLENGE

Coding and Building; 36 votes altogether, which is 23 more than Drawing.

Accept frequency tables in any clear order if each category has the correct count. For scaled graphs and pictographs, students must use the key before comparing or totaling.