

Bar Count Detectives

Draw graphs. Use graphs to solve problems.

GRADE 2 • 2.MD.D.10

CCSS.Math.Content.2.MD.D.10 "Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems 1 using information presented in a bar graph."

NAME _____

DATE _____

ONE SYMBOL, ONE VOTE

A picture graph uses pictures to show counts. A bar graph uses bars. Use one picture or one square for each vote. Label every group.

WORKED EXAMPLE

How many votes did cats and dogs get in all?

1. Count 2 votes for cats.
2. Count 3 votes for dogs.
3. Add: $2 + 3 = 5$.

Answer: 5 votes

Pet Votes

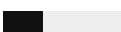
Cats	★ ★
Dogs	★ ★ ★

Key: ★ Each star = 1 vote

PRACTICE 4 problems

1 Which fruit got the most votes?

FRUIT VOTES

Apples  4
Pears  2
Grapes  6

votes

ANSWER _____

2 How many more votes did blue get than red?

Color Votes

Blue	★ ★ ★ ★ ★
Red	★ ★

Key: ★ Each star = 1 vote

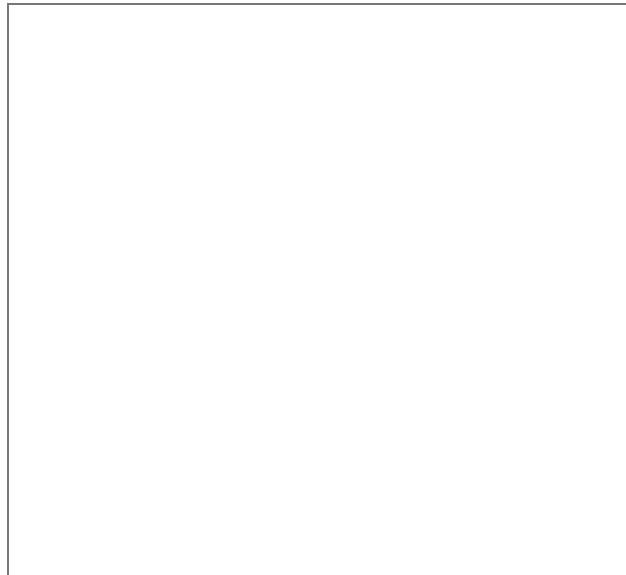
ANSWER _____

- 3** Draw a bar graph: frogs 3, fish 5, birds 2, dogs 4. Label each group. Use 1 square for each vote.



ANSWER _____

- 4** Draw a picture graph: swings 4, slide 3, sandbox 1. Label each group. Use 1 circle for each vote.



ANSWER _____

APPLY IT Show your work

- 1** Our class voted for a snack. How many children chose crackers or carrots?

SNACK VOTES



votes

ANSWER _____

2 Some books are on a shelf. Five are animal books. How many are not animal books?

Shelf Books

Animals	★ ★ ★ ★ ★
Space	★ ★
Sports	★ ★ ★ ★

Key: ★ Each star = 1 book

ANSWER _____

CHALLENGE One step up

Look at your bar graph of animal votes. How many more votes would frogs need to tie with fish? Tell how you know.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Which fruit got the most votes?	Grapes, with 6 votes.
2	How many more votes did blue get than red?	3 more votes.
3	Draw a bar graph: frogs 3, fish 5, birds 2, dogs 4. Label each group. Use 1 square for each vote.	Four labeled bars show 3, 5, 2, and 4 votes on a single-unit scale.
4	Draw a picture graph: swings 4, slide 3, sandbox 1. Label each group. Use 1 circle for each vote.	Swings: 4 circles; slide: 3 circles; sandbox: 1 circle. Each circle stands for 1 vote.

PART 2 • APPLY IT

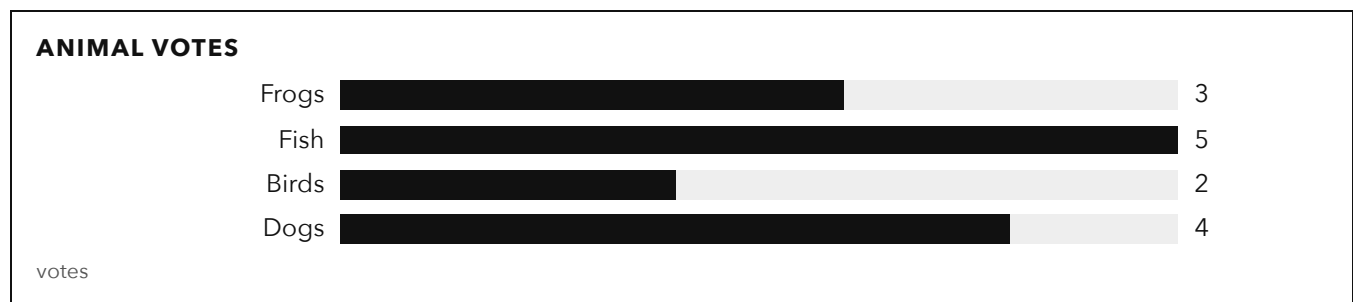
- 9 children.** Add the two bars: $6 + 3 = 9$.
- 6 books.** There are 11 books in all. Subtract the 5 animal books: $11 - 5 = 6$. Also accept $2 + 4 = 6$.

CHALLENGE

2 votes. Fish have 5 and frogs have 3. The difference is $5 - 3 = 2$.

Check both student-made graphs for correct group labels and a single-unit scale. Accept horizontal or vertical bars, and other clear layouts that follow the stated scale. The sample figures show counts; students must make their own graphs.

PRACTICE 3 • SAMPLE FIGURE



PRACTICE 4 · SAMPLE FIGURE

Playground Votes

Swings	● ● ● ●
Slide	● ● ●
Sandbox	●

Key: ● Each circle = 1 vote