LESSON MAKER PRO

Count the Choices

Turn class choices into frequency tables.

GRADE 3 · 3.D.1.1

3.D.1.1 "Collect and organize a data set with multiple categories using a frequency table, line plot, pictograph, or bar graph with scaled intervals."

NAME _____ DATE _____

COUNT BY CATEGORY

A frequency table shows how many times each choice appears. If a picture stands for more than one vote, use the key to find the total for each row.

WORKED EXAMPLE

The pictograph shows votes for fair prizes. Make a frequency table.

Fair Prize Votes

Stickers	★
Yo-yos	★ ★
Pencils	★ ★ ★

Key: ★ = 4 votes

1. The key says each star stands for 4 votes.
2. Count the stars in each row.
3. Multiply each row's stars by 4 and record the totals.

Answer: Stickers: 4; Yo-yos: 8; Pencils: 12.

PRACTICE 6 problems

1 Use the pictograph to write a frequency table for all three games.

Favorite Games

Tag	● ● ●
Chess	●
Dance	● ● ● ● ●

Key: ● = 2 votes

ANSWER _____

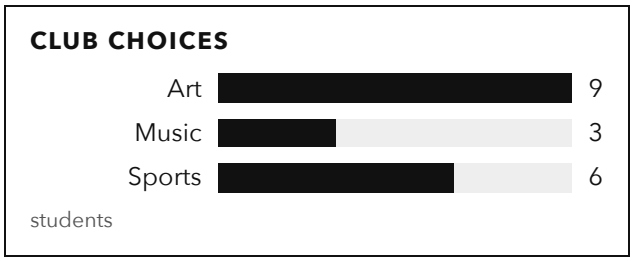
_____

2 These are fruit choices: apple, banana, apple, pear, apple, pear, banana, apple, apple, banana, apple. Make a frequency table.

ANSWER _____

_____

3 Use the bar graph to write a frequency table for all three clubs.



ANSWER _____

_____

4 These are snack choices: crackers, pretzels, crackers, popcorn, crackers, pretzels, crackers, popcorn, pretzels, crackers. Make a frequency table. Which snack was chosen most?

ANSWER _____

_____

5 Use the total to find the missing number. Write a complete frequency table without the total row.

GAME PIECES SORTED

Piece	Number
Cards	7
Marbles	?
Dice	3
Total	16

ANSWER _____

_____

6 Use the pictograph to write a frequency table. How many more votes did the most popular choice get than the least popular choice?

Class Pet Votes

Fish	♥
Bird	♥ ♥
Rabbit	♥ ♥ ♥

Key: ♥ = 3 votes

ANSWER _____

_____

APPLY IT Show your work

1 At recess, students chose a game: tag, jump rope, tag, chalk, tag, jump rope, tag, chalk, jump rope, tag, tag. Make a frequency table. How many students chose a game?

WORK SPACE

ANSWER _____

2 A class voted on an activity for Friday. Use the pictograph to make a frequency table. Which activity got the most votes?

Friday Activity Votes

Crafts	◆ ◆ ◆
Games	◆ ◆ ◆ ◆ ◆
Music	◆

Key: ◆ = 2 votes

ANSWER _____

CHALLENGE One step up

This table shows how many students chose each activity before and after lunch. Combine the two counts for each activity to make a new frequency table. Which activities are tied?

ACTIVITY CHOICES

Activity	Before lunch	After lunch
Drawing	7	2
Reading	3	6
Building	1	5

WORK SPACE AND ANSWER

ANSWER KEY

Count the Choices

GRADE 3 · 3.D.1.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the pictograph to write a frequency table for all three games.	**Tag: 6; Chess: 2; Dance: 10.**
2	These are fruit choices: apple, banana, apple, pear, apple, pear, banana, apple, apple, banana, apple. Make a frequency table.	**Apple: 6; Banana: 3; Pear: 2.**
3	Use the bar graph to write a frequency table for all three clubs.	**Art: 9; Music: 3; Sports: 6.**
4	These are snack choices: crackers, pretzels, crackers, popcorn, crackers, pretzels, crackers, popcorn, pretzels, crackers. Make a frequency table. Which snack was chosen most?	**Crackers: 5; Pretzels: 3; Popcorn: 2. Crackers were chosen most.**
5	Use the total to find the missing number. Write a complete frequency table without the total row.	**Cards: 7; Marbles: 6; Dice: 3.**
6	Use the pictograph to write a frequency table. How many more votes did the most popular choice get than the least popular choice?	**Fish: 3; Bird: 6; Rabbit: 9. Rabbit got 6 more votes than Fish.**

PART 2 · APPLY IT

1. **Tag: 6; Jump rope: 3; Chalk: 2. Total: 11 students.** Count each game choice, then add 6 + 3 + 2 to get 11.
2. **Crafts: 6; Games: 10; Music: 2. Games got the most votes.** Multiply each row's symbols by 2. Compare the three totals.

CHALLENGE

Drawing: 9; Reading: 9; Building: 6. Drawing and Reading are tied.

Accept frequency tables in any clear format with the correct category totals. The category order does not matter.