LESSON MAKER PRO

Graph the Difference

Make scaled graphs and compare what they show.

GRADE 3 · MT.3.MD.3

MT.3.MD.3 "Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs..."

NAME _____ DATE _____

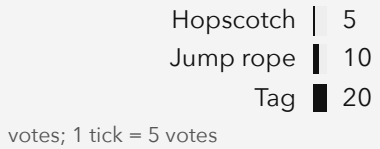
READ THE SCALE

A scale tells you how much each graph mark or picture symbol stands for. Use it to find each category's total. To find how many more, subtract the smaller total from the larger total.

WORKED EXAMPLE

How many more students chose tag than hopscotch?

FAVORITE PLAYGROUND GAMES



votes; 1 tick = 5 votes

1. Read the bars: tag has 20 votes and hopscotch has 5 votes.
2. Subtract: 20 - 5 = 15.

Answer: 15 more students

PRACTICE 6 problems

1 Use the table to draw a picture graph. Let each • stand for 4 bookmarks. Give your graph a title and a key.

BOOKMARKS MADE BY A CLASS

Design	Bookmarks
Animals	4
Plants	8
Sports	12

ANSWER _____

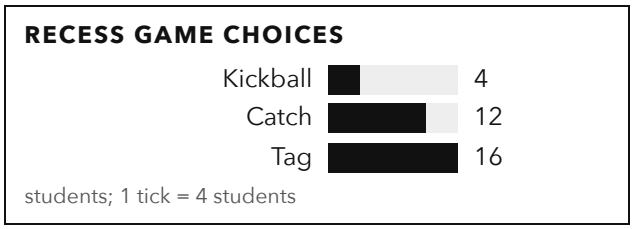
2 Use the table to draw a bar graph. Label the bars and use a scale of 4 books per tick.

BOOKS BY INDIGENOUS AUTHORS FROM MONTANA COMMUNITIES

Type	Books
Poetry	8
Stories	16
Information	24

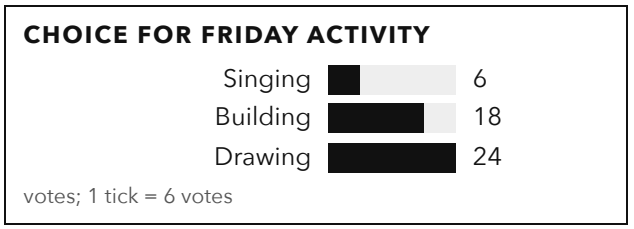
ANSWER _____

3 How many fewer students chose kickball than tag?



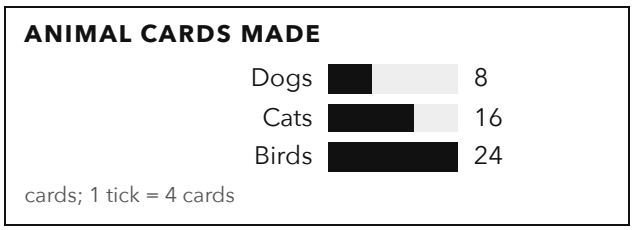
ANSWER _____

4 How many more votes did drawing get than singing?



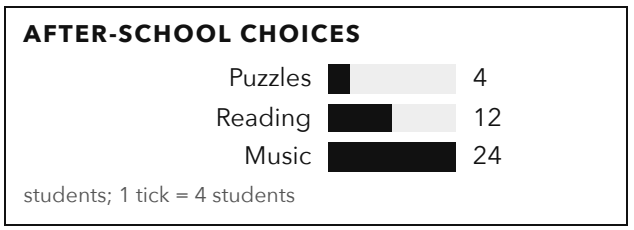
ANSWER _____

5 How many fewer cards were made for dogs than for birds?



ANSWER _____

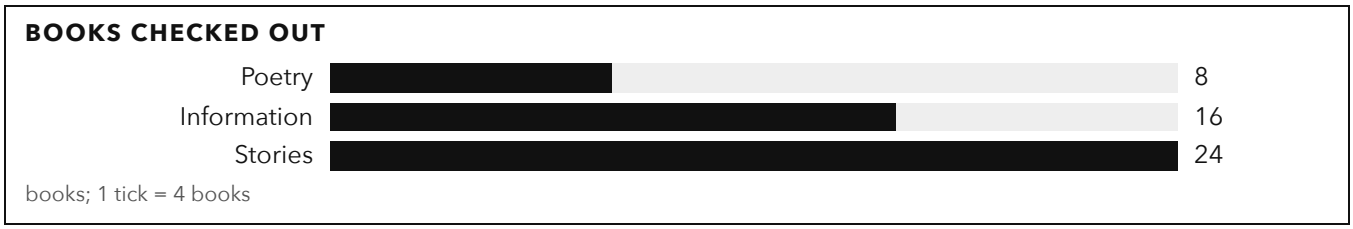
6 How many more students chose music than puzzles and reading together?



ANSWER _____

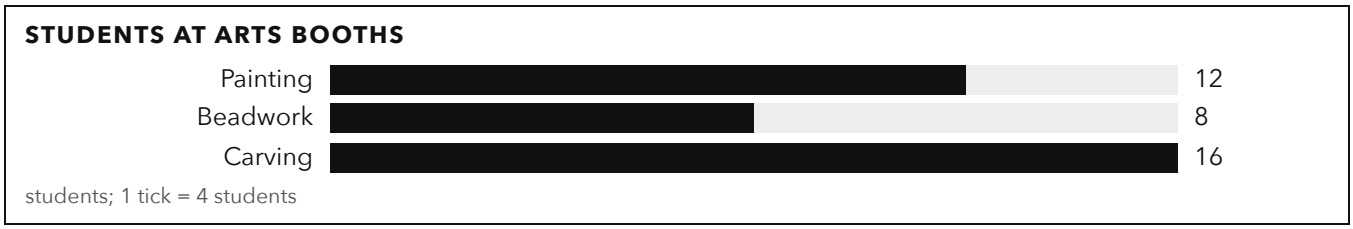
APPLY IT Show your work

1 At a Montana school library, students checked out books by Indigenous authors from Montana communities. How many more storybooks than poetry books did they check out?



ANSWER _____

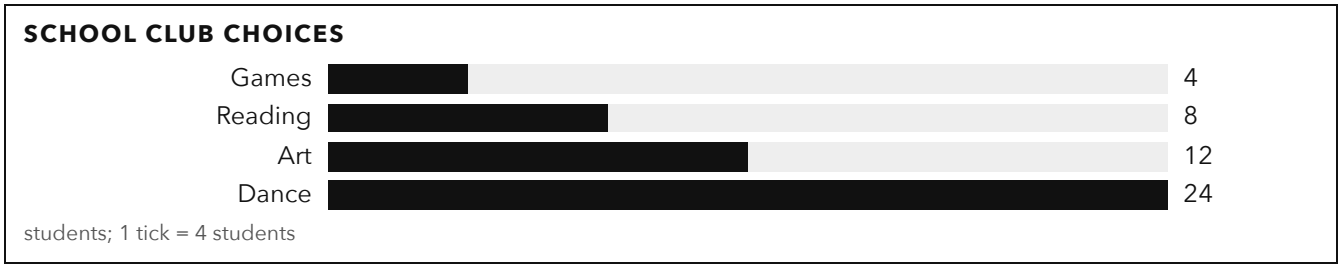
2 At a community arts day, students visited booths run by Indigenous artists from Montana. How many more students visited the painting and beadwork booths together than the carving booth?



ANSWER _____

CHALLENGE One step up

How many more students chose dance and art together than games and reading together? Show how you found your answer.



WORK SPACE AND ANSWER

ANSWER KEY

Graph the Difference

GRADE 3 · MT.3.MD.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the table to draw a picture graph. Let each • stand for 4 bookmarks. Give your graph a title and a key.	**A titled picture graph with a key showing • = 4 bookmarks: Animals, 1 •; Plants, 2 •; Sports, 3 •.**
2	Use the table to draw a bar graph. Label the bars and use a scale of 4 books per tick.	**A bar graph with labeled bars for Poetry at 8, Stories at 16, and Information at 24, using 4 books per tick.**
3	How many fewer students chose kickball than tag?	**12 students**
4	How many more votes did drawing get than singing?	**18 votes**
5	How many fewer cards were made for dogs than for birds?	**16 cards**
6	How many more students chose music than puzzles and reading together?	**8 students**

PART 2 · APPLY IT

1. **16 more storybooks** The story bar shows 24 books, and the poetry bar shows 8. Subtract 24 - 8 = 16.
2. **4 more students** Painting and beadwork had 12 + 8 = 20 students together. Subtract 20 - 16 = 4.

CHALLENGE

24 more students; dance and art total 24 + 12 = 36, games and reading total 4 + 8 = 12, and 36 - 12 = 24.

For drawn graphs, accept any clear title and labels with the correct categories, totals, and scale. Students may show the differences with subtraction equations or words.