LESSON MAKER PRO

Chance in Charts

Compare chances from votes and prizes

GRADE 7 · 7.DS.C.5.c

7.DS.C.5.c "Use visual representations (e.g., bar graphs, circle graphs) to compare and interpret probabilities."

NAME _____ DATE _____

READ THE BARS

When one item is picked at random, its probability is its bar's count divided by the total count. To compare two chances, write both probabilities with the same denominator, then subtract to find the difference.

WORKED EXAMPLE

One vote is picked at random. Which option is more likely, A or B? By how much?

VOTES



1. Total votes: 9 + 15 = 24.
2. P(A) = 9/24 and P(B) = 15/24.
3. Difference: 15/24 - 9/24 = 6/24 = 1/4.

Answer: B, by 1/4.

PRACTICE 4 problems

1 Which probability is greater, 1/2 or 2/7?

ANSWER _____

2 How much greater is 4/11 than 1/11?

ANSWER _____

3 Which is greater, 7/12 or 5/12? By how much?

ANSWER _____

4 Are 2/5 and 4/10 equally likely?

ANSWER _____

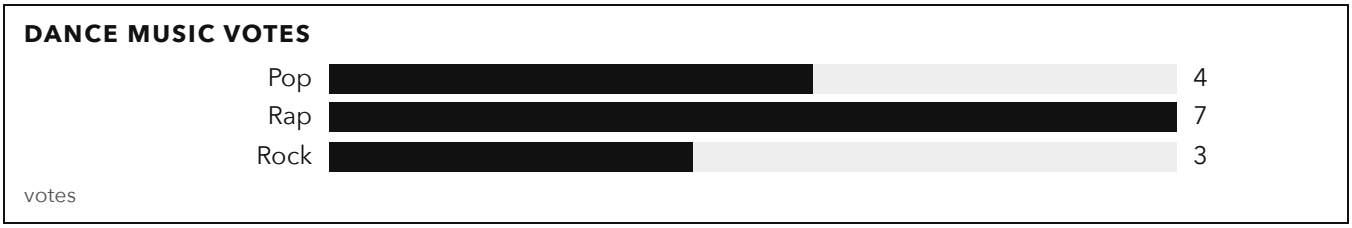
APPLY IT Show your work

1 Your class votes on a Friday activity. One ballot is picked at random. Which is more likely, Games or Art? By how much?



ANSWER _____

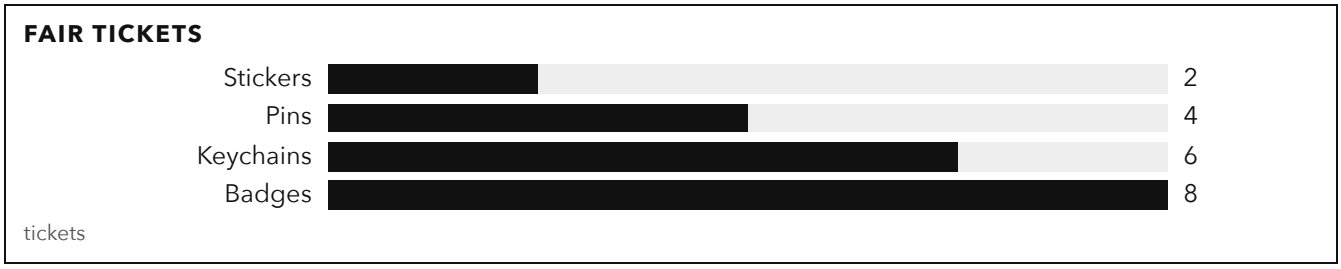
2 Students vote on music for a dance. One ballot is picked at random. Is Rap more likely than Pop and Rock combined? Explain with probabilities.



ANSWER _____

CHALLENGE One step up

Each fair ticket names one prize. A ticket is picked at random. Are the two least common prizes together more likely than the most common prize? Explain with probabilities.



WORK SPACE AND ANSWER

ANSWER KEY

Chance in Charts

GRADE 7 · 7.DS.C.5.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Which probability is greater, 1/2 or 2/7?	**1/2**
2	How much greater is 4/11 than 1/11?	**3/11**
3	Which is greater, 7/12 or 5/12? By how much?	**7/12, by 1/6.**
4	Are 2/5 and 4/10 equally likely?	**Yes.**

PART 2 · APPLY IT

1. **Games, by 1/5.** There are 20 ballots. The difference is 6/20 - 2/20 = 4/20 = 1/5.
2. **No. Rap and Pop or Rock are equally likely: each has probability 7/14.** Rap has 7 of the 14 ballots. Pop and Rock together have 4 + 3 = 7 ballots.

CHALLENGE

No. Stickers or Pins has probability 6/20, while Badges has probability 8/20. Badges is more likely by 1/10.

Accept equivalent fractions. For the written comparisons, look for counts divided by the total shown in the graph.