LESSON MAKER PRO

Chance Check

Find and compare probabilities.

GRADE 7 · 7.DSP.C.13

7.DSP.C.13 "Use a number from 0 to 1 to represent the probability of a chance event occurring, explaining that larger numbers indicate greater likelihood of the event occurring, while a number near zero indicates an unlikely event."

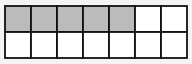
NAME _____ **DATE** _____

THE BIG IDEA

When outcomes are equally likely, probability = favorable outcomes / all outcomes. Probabilities go from 0 to 1. A number near 0 means an event is unlikely, while a larger number means it is more likely.

WORKED EXAMPLE

Pick one square at random. Find P(shaded).



1. Count shaded squares: 5.
2. Count all squares: 14.
3. P(shaded) = 5/14.

Answer: 5/14

PRACTICE 4 problems

1 A bag has 1 red bead and 8 blue beads. Find P(red).

ANSWER _____

2 A game has 9 winning cards and 1 losing card. Find P(win).

ANSWER _____

3 A jar has 8 green chips and no purple chips. Find P(purple).

ANSWER _____

4 A box has 6 star stickers and no other stickers. Find P(star).

ANSWER _____

APPLY IT Show your work

1 Your playlist is on shuffle. Each song is equally likely to play. Find P(hip-hop).

PLAYLIST

Genre	Songs
Hip-hop	9
Pop	8
Rock	3

ANSWER _____

2 A game randomly selects one of 16 avatars. Only 1 is a dragon. Find P(dragon). Is it likely or unlikely?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game gives either a bonus or no bonus. P(bonus) = 1/10. Find P(no bonus). Explain which event is more likely.

WORK SPACE AND ANSWER

ANSWER KEY

Chance Check

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A bag has 1 red bead and 8 blue beads. Find P(red).	**1/9**
2	A game has 9 winning cards and 1 losing card. Find P(win).	**9/10**
3	A jar has 8 green chips and no purple chips. Find P(purple).	**0**
4	A box has 6 star stickers and no other stickers. Find P(star).	**1**

PART 2 · APPLY IT

1. **9/20** There are 9 hip-hop songs out of 20 songs, so the probability is 9/20.
2. **1/16; unlikely** The probability is 1/16. It is near 0, so selecting a dragon is unlikely.

CHALLENGE

P(no bonus) = 9/10. No bonus is more likely because 9/10 > 1/10.

Accept 0/8 for 0 and 6/6 for 1. For the challenge, require a correct comparison of the two probabilities.