

PARCC Assessment Item Illustrating 7.SP.C.8

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Martina read that approximately 10% of all people are left-handed. She wants to design a simulation to approximate the probability of selecting exactly 2 right-handed people when 3 people are randomly selected.

Part A

In the simulation, Martina has a spinner with sections of equal size. One section is labeled "L" (left) and the rest of the sections are labeled "R" (right).

For this simulation to be as accurate as possible, what is the total number of sections that the spinner should have?

Enter your answer in the box.

Part B

Martina spins the arrow on the spinner 3 times and records the resulting letters. Martina performs the simulation 30 times. The results of the simulation are shown.

RRR RLR RRR RRL RRR RRR
RRR RRR RRR LRR RRR RRR
RRR RRR RRR RRR RLR LRL
RRR RRL RRR RRR LLR RRR
RRR RRR LRR RRR RRR RRR

Select from the drop-down menus to correctly complete the sentence.

Based on the results of this simulation, when 3 people are randomly selected, exactly 2 right-handed people are selected approximately

Choose.. ▾

- 10
- 15
- 20
- 25

percent of the time.

Answer Key

Part A: 10

Part B: 20

Elaboration on Alignment

This item illustrates the intent of standard 7.SP.C.8c which requires students to use simulations as part of their overall work on developing and using probability models. This work prepares students for the study of probability in high school where they focus on understanding independence and conditional probability.

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