## Unit 8 Lesson 5 Cumulative Practice Problems

1. What is the same about these two experiments? What is different?
   * Selecting a letter at random from the word “ALABAMA”
   * Selecting a letter at random from the word “LAMB”



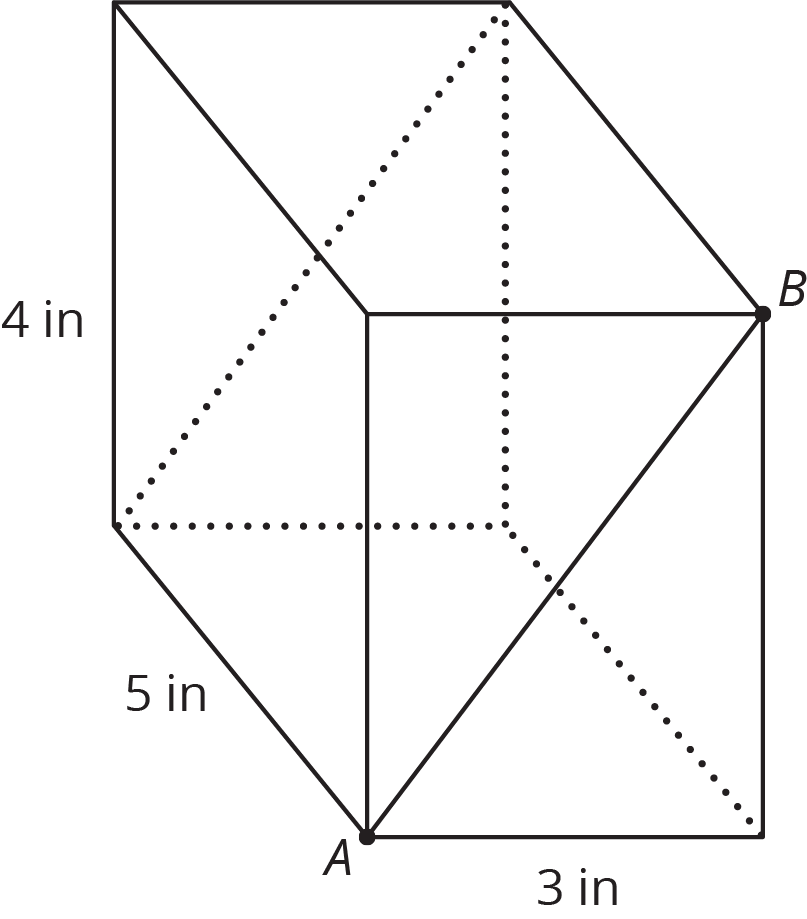
1. Andre picks a block out of a bag 60 times and notes that 43 of them were green.
   1. What should Andre estimate for the probability of picking out a green block from this bag?
   2. Mai looks in the bag and sees that there are 6 blocks in the bag. Should Andre change his estimate based on this information? If so, what should the new estimate be? If not, explain your reasoning.
2. Han has a number cube that he suspects is not so standard.
   * Han rolls the cube 100 times, and it lands on a six 40 times.
   * Kiran rolls the cube 50 times, and it lands on a six 21 times.
   * Lin rolls the cube 30 times, and it lands on a six 11 times.

* Based on these results, is there evidence to help prove that this cube is not a standard number cube? Explain your reasoning.

1. A textbook has 428 pages numbered in order starting with 1. You flip to a random page in the book in a way that it is equally likely to stop at any of the pages.
   1. What is the sample space for this experiment?
   2. What is the probability that you turn to page 45?
   3. What is the probability that you turn to an even numbered page?
   4. If you repeat this experiment 50 times, about how many times do you expect you will turn to an even numbered page?

* (From Unit 8, Lesson 3.)

1. A rectangular prism is cut along a diagonal on each face to create two triangular prisms. The distance between and is 5 inches.

* 
* What is the surface area of the original rectangular prism? What is the total surface area of the two triangular prisms together?
* (From Unit 7, Lesson 15.)



© CC BY Open Up Resources. Adaptations CC BY IM.