### Lesson 2 Practice Problems

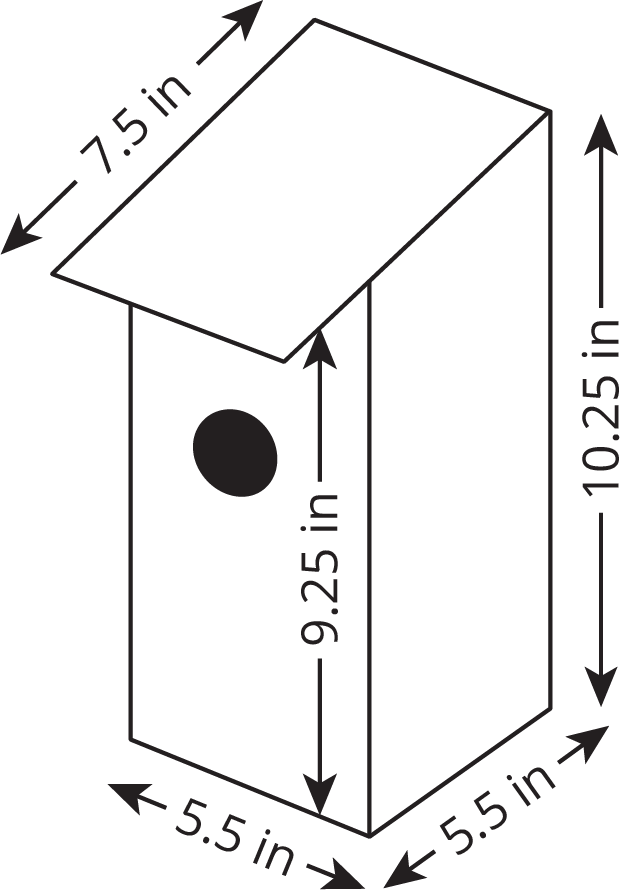
1. The likelihood that Han makes a free throw in basketball is 60%. The likelihood that he makes a 3-point shot is 0.345. Which event is more likely, Han making a free throw or making a 3-point shot? Explain your reasoning.
2. Different events have the following likelihoods. Sort them from least to greatest:

* 60%
* 8 out of 10
* 0.37
* 20%

1. There are 25 prime numbers between 1 and 100. There are 46 prime numbers between 1 and 200. Which situation is more likely? Explain your reasoning.
   * A computer produces a random number between 1 and 100 that is prime.
   * A computer produces a random number between 1 and 200 that is prime.
2. It takes cups of cheese, cups of olives, and cups of sausage to make a signature pizza. How much of each ingredient is needed to make 10 pizzas? Explain or show your reasoning.

* (From Unit 4, Lesson 2.)

1. Here is a diagram of a birdhouse Elena is planning to build. (It is a simplified diagram, since in reality, the sides will have a thickness.) About how many square inches of wood does she need to build this birdhouse?

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* (From Unit 7, Lesson 16.)

1. Select **all** the situations where knowing the surface area of an object would be more useful than knowing its volume.
   1. Placing an order for tiles to replace the roof of a house.
   2. Estimating how long it will take to clean the windows of a greenhouse.
   3. Deciding whether leftover soup will fit in a container.
   4. Estimating how long it will take to fill a swimming pool with a garden hose.
   5. Calculating how much paper is needed to manufacture candy bar wrappers.
   6. Buying fabric to sew a couch cover.
   7. Deciding whether one muffin pan is enough to bake a muffin recipe.

* (From Unit 7, Lesson 15.)



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