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% $\frac{5}{6}$

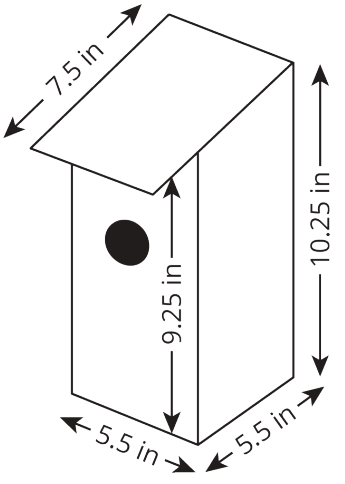
3. There are 25 prime numbers between 1 and 100. There are 46 prime numbers between 1 and 200. Which situation is more likely? Explain your reasoning.

   - 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.

4. It takes $4\frac{3}{8}$ cups of cheese, $\frac{7}{8}$ cups of olives, and $2\frac{5}{8}$ 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.)

5. 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?



(From Unit 7, Lesson 16.)

6. Select **all** the situations where knowing the surface area of an object would be more useful than knowing its volume.

   A. Placing an order for tiles to replace the roof of a house.

   B. Estimating how long it will take to clean the windows of a greenhouse.

   C. Deciding whether leftover soup will fit in a container.

   D. Estimating how long it will take to fill a swimming pool with a garden hose.

   E. Calculating how much paper is needed to manufacture candy bar wrappers.

   F. Buying fabric to sew a couch cover.

   G. Deciding whether one muffin pan is enough to bake a muffin recipe.

(From Unit 7, Lesson 15.)