## **3.3** Probability Distributions

## Discovery

Finding out for yourself

What pattern do you think the following random phenomena follow (let's say if you repeated each phenomenon 500 times)?

1. The total showing after rolling a pair of dice?

2. The number of heads when flipping multiple coins at once?

- 3. The final location of a bean falling through the bean machine shown at right?
- Use simulations such as those found on the companion website to validate your guesses.
  - 4. What distributions do these behaviors actually follow?

5. Did the results surprise you? Did the patterns follow what you expected?

