

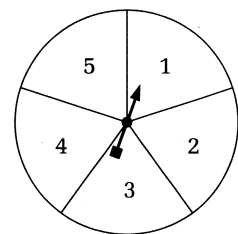
Practice 2

For use with Section 1-2

The table at the right shows the outcomes of ten samples of 10 trials each on a spinner like the one below. Suppose 40% of all college students have jobs that help pay for their education. Suppose a student has a job if the spinner lands on 2 or 4. Use the table for Exercises 1–5. Estimate the probability of each event.

	1	2	3	4	5
Sample 1	2	3	1	1	3
Sample 2	1	2	1	4	2
Sample 3	3	2	2	0	3
Sample 4	2	2	2	2	2
Sample 5	2	1	3	2	2
Sample 6	2	0	2	2	4
Sample 7	1	3	3	3	0
Sample 8	2	4	1	2	1
Sample 9	2	3	2	2	1
Sample 10	0	3	2	3	2

1. Exactly 4 out of 10 students have jobs.
2. Out of 10 students, fewer than 4 have jobs.
3. Between 3 and 5 (inclusive) out of 10 students have jobs.
4. None of the students in a sample of 10 has a job.
5. Out of 10 students, 50% or more have jobs.



The results of 20 samples of 10 flips of a coin are shown below. Suppose a person's birthday is on or before July 1 if heads comes up and after July 1 if tails comes up. Use the table in Exercises 6–10.

Number of tails in sample	1	2	3	4	5	6	7	8	9	10
Number of samples with this many tails	0	0	1	3	6	5	2	2	1	0

6. What is the greatest number of people in any sample with birthdays after July 1?
7. What is the least number of people in any sample with birthdays after July 1?
8. What is the mean of the number of people with birthdays after July 1 in the samples?
9. What is the theoretical probability that a person chosen at random has a birthday after July 1?
10. According to the data, what is the probability that a person's birthday is after July 1?
11. **Open-ended** Suppose it is equally likely that a person's birthday falls in each pair of months: January–February, March–April, May–June, July–August, September–October, or November–December. Devise an experiment using a die that will simulate the situation. Draw as many conclusions from your experiment as you can.