

Ratio and Probability

Performance Task Objectives

- Find the probability of an even or of two independent events.

Sunshine State Standards

- MA.E.2.2.2
- MA.E.3.2.1

Materials

- Student recording sheet
- Paper clips
- Pencil
- Rulers

Student arrangement

- Individual or small group

Task

Present the problem on the student Recording Sheet to your students.

Performance Criteria

- Does one of the spinners show equally likely outcomes for A-D?
- Is one of the spinners divided and numbered so that the probability of spinning an even number is two times as great as the probability of spinning an odd number?
- Can the student clearly explain how the two spinners meet the criteria in the problem?

Name _____

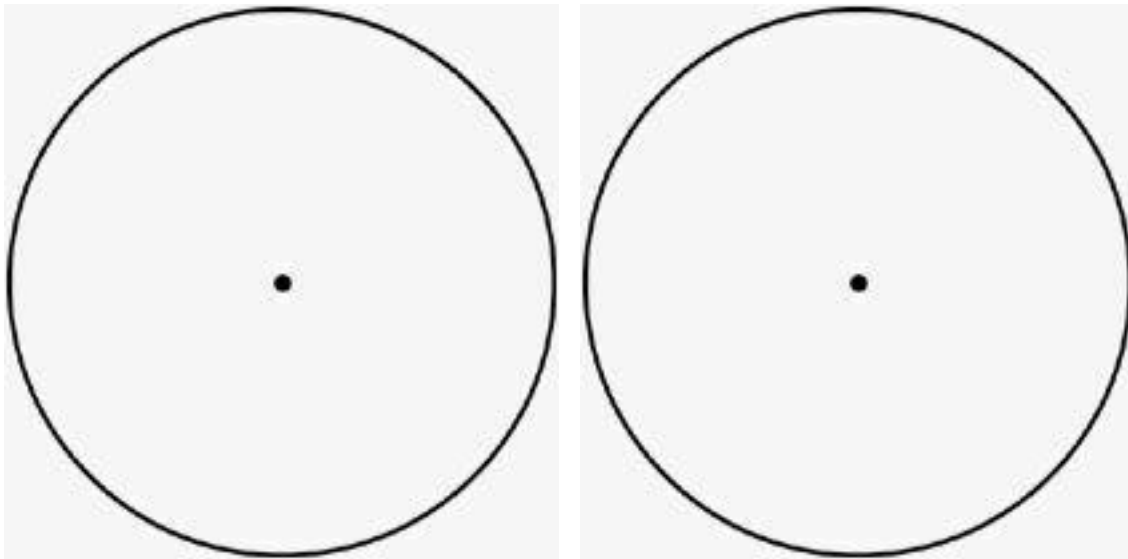
Solve this problem:

Design two spinners.

One spinner should be designed to show **equally likely** outcomes for the letters A-D.

The second spinner should be designed so that the probability of spinning an even number is **twice** as likely as spinning an odd number. You may use any of the digits 1 through 9 on your spinner. **A number may be used more than once.**

How will you design each spinner?



Use the following directions to test your spinners.

Spinner directions.

1. Place the paper clip over the center of your spinner.
2. Place the pencil point on the center point of your spinner, through the paper clip.
3. Using the other hand, spin the paper clip around the pencil point.

Explain how the first spinner shows equally likely outcomes and how the second spinner shows that spinning an even number is two times as likely as spinning an odd number.