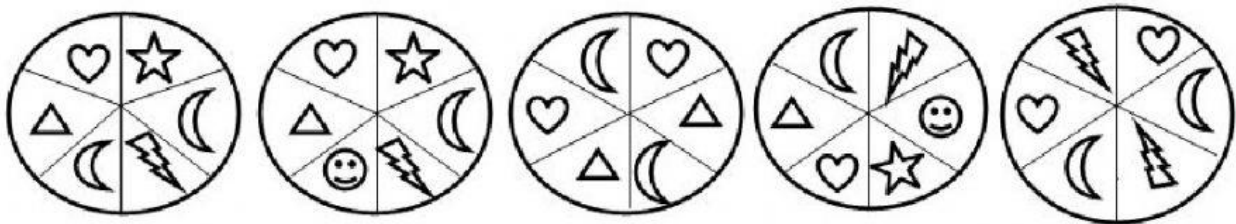## SOL 4.14 ASSESSMENT

Directions: Solve for each of the problems.

1. Mrs. Jones is making different spinners for math class. She needs to make a spinner with -
- **six equally likely chances of landing on a space**
- **each space has a different figure**

a. Which two spinners should Mrs. Jones use for her math lesson?

b. What would be the fraction for each of the possible outcomes for the correct two spinners?

a. $\frac{1}{3}$

b. $\frac{1}{6}$

c. $\frac{1}{4}$

d. $\frac{1}{2}$

2. Todd has the following notebooks in his backpack.

- **3 blue notebooks**
- **2 green notebooks**
- **2 red notebooks**
- **1 yellow notebooks**

The notebooks are all the same size and shape. Todd reaches into his backpack and selects one notebook without looking. What is the likelihood that the notebook will be yellow?

a. certain

b. most likely

c. least likely

d. impossible

3. A jar contains these marbles –

- 5 blue marbles
- 4 red marbles
- 2 orange marbles
- 4 yellow marbles

All the marbles are the same size. Justin will choose 1 marble from this jar without looking.

Complete these statements by circling which word makes it true.

It is most likely that Justin will choose a [Choose... ▼] marble from this jar.
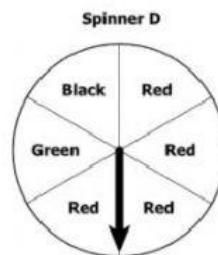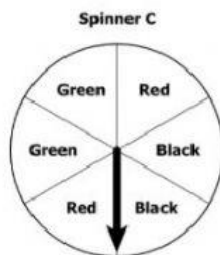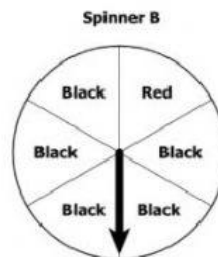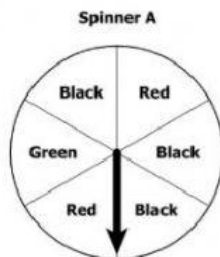
    Blue
    Red
    Orange
    Yellow

It is equally likely that Justin will choose a [Choose... ▼] marble from this jar.

    Blue or Yellow
    Red or Orange
    Orange or Yellow
    Yellow or Red

4. The probability that the arrow on a spinner will land on a space labeled red is $\frac{4}{6}$. Which spinner best represents this situation?

Spinner A

Black | Red
Green | Black
Red | Black

Spinner B

Black | Red
Black | Black
Black | Black

Spinner C

Green | Red
Green | Black
Red | Black

Spinner D

Black | Red
Green | Red
Red | Red

a. Spinner A

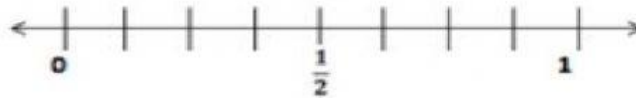b. Spinner B

c. Spinner C

d. Spinner D

For questions 5 and 6, use the spinner and situation below.

Maria has a spinner with eight equal sections as shown. She will spin the arrow on this spinner one time.
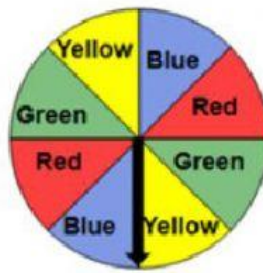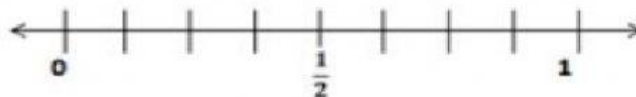

Place a point on the number line to represent the probability described in each situation.

5. What is the probability the arrow will land on a section that is NOT yellow?

a. certain   b. most likely

c. least likely   d. impossible

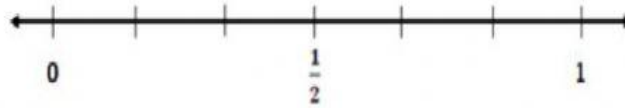**6. What is the probability the arrow will land on a green section?**

a. certain   b. most likely

c. least likely   d. impossible

**For questions 7 and 8, use the scenario below.**

Lauren will roll a fair number cube that has sides labeled 1 through 6. Place a point on the number line to represent the probability of each situation.

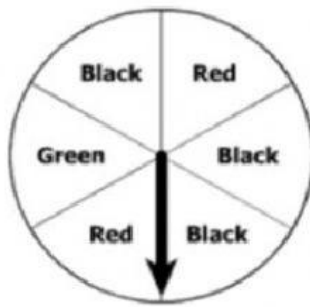**7. What is the probability Lauren will roll a 5 on the first roll?**

$$0 \qquad \frac{1}{2} \qquad 1$$

a. certain   b. most likely

c. least likely   d. impossible

8. What is the probability she will roll a number greater than 6?

$$0 \qquad \frac{1}{2} \qquad 1$$
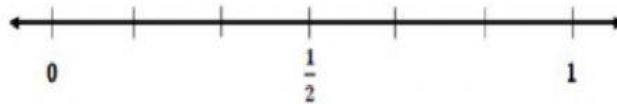
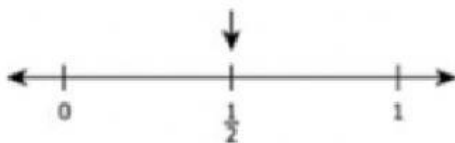a. certain   b. most likely

c. least likely   d. impossible

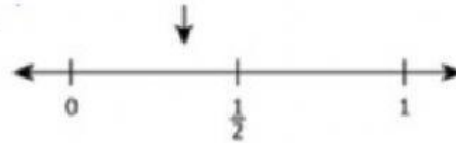**9. William will spin the arrow on this spinner one time.**

William has an equally likely chance that he will land on a black space. Which number line best represents the probability the arrow will land on a space labeled black?
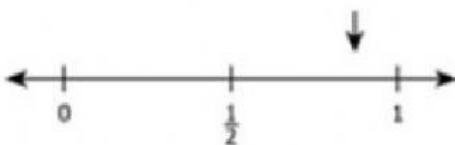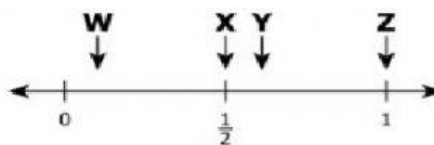
a.

b.

c.

d.

10. Ethan has erasers in his pencil bag.

- **There are orange erasers and purple erasers.**
- **All the erasers are the same size and shape.**
- **Ethan is certain to select an orange or purple eraser.**

Which letter represents the probability Ethan will select an orange or purple eraser?

a. W   b. X

c. Y   d. Z