

Master 11.17

Extra Practice 1

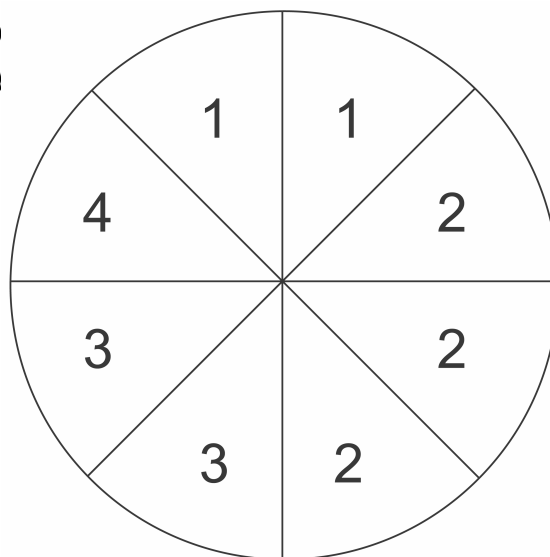
Lesson 1: The Language of Probability

1. Suppose you roll a number cube labeled impossible, possible, certain, unlikely
 - a) You roll a 3.
 - b) You roll a number greater than 2.
 - c) You roll a 7.
 - d) You roll a number greater than or equal to 1.

2. Suppose you spin the pointer on this spinner:

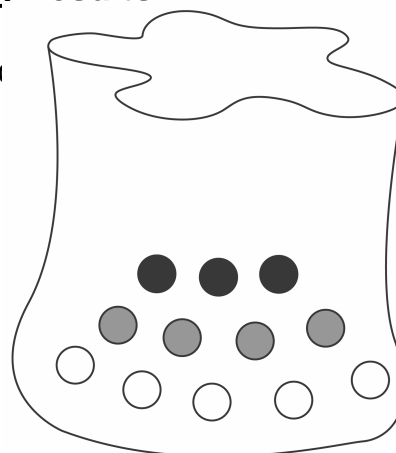
Say which number:

 - a) You are most likely to pick.
 - b) You will never pick.
 - c) You are least likely to pick.



Lesson 2: Identifying Outcomes and Predicting Results

1. Suppose you pick a marble from this bag, without looking.
 - a) What are the possible outcomes?
 - b) What is the probability that you pick each colour?
 - grey
 - white
 - black
 - c) Which outcome is most probable? Least probable?



Extra Practice 2

Lesson 4: Exploring Predictions

1. Colour a spinner that has 4 equal sectors:
1 red, 2 blue, and 1 yellow
 - a) Predict how many times the pointer will land on each colour in 24 spins.
 - b) Conduct the experiment.
 - c) How do the results compare with your predictions?
2. You will need a number cube.
 - a) Predict how many times an even number will show when you roll the cube 25 times.
 - b) Conduct the experiment.
 - c) How do the results compare with your predictions?

Lesson 5: Predicted and Actual Results

1. You will need an envelope with 3 red, 2 yellow, and 5 blue paper clips. Suppose you repeated this experiment 100 times. Without looking, take a paper clip from the envelope, record the colour, and return it.
 - a) Predict how many times each colour of paper clip may be picked.
 - b) What is the probability of picking each colour?
 - c) Conduct the experiment.
How do your predicted results compare with your actual results?
 - d) Combine your results with those of a classmate.
What are your new predicted results? How do they compare with the actual results?

Name _____ Date _____

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Sample Answers

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Lesson 1

- Possible
 - Likely
 - Impossible
 - Certain
- 2
 - Any number other than 1, 2, 3, or 4
 - 4

Lesson 2

- Grey, white, and black
 - Grey: $\frac{4}{12}$; white: $\frac{5}{12}$; black: $\frac{3}{12}$
 - Most probable: white
Least probable: black

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Lesson 4

- Red: 6; blue: 12; yellow: 6
 - Actual results will vary.
 - In most cases, students' results will be different from their predictions.
- An even number may show about 12 or 13 times.
 - Actual results will vary.
 - In most cases, students' results will be different from their predictions.

Lesson 5

- Red: 30; yellow: 20; blue: 50
 - Red: $\frac{3}{10}$; yellow: $\frac{2}{10}$; blue: $\frac{5}{10}$
 - In most cases, students' results will be different from their predictions.