

Extra Practice 1**Lesson 1: Describing Probabilities**

1. Nadine is making bead necklaces. She puts 10 blue, 5 green, 5 yellow, 12 red, and 18 black beads in a bag. She reaches into the bag without looking and pulls out a bead. For each colour of bead, use words and a fraction to describe the probability that it will be picked from the bag.
2. Roos surveyed her classmates to find their favourite flavour of cookie. Fourteen students chose chocolate chip, 9 chose peanut butter, 2 chose oatmeal, and 1 student does not like any type of cookie. Roos puts each student's name in a hat. She pulls out a name without looking. What is the probability that she draws the name of someone whose favourite cookie flavour is:
 - a) oatmeal?
 - b) chocolate chip?
 - c) coconut?
 - d) no favourite flavour?

Lesson 2: Probability and Percent

1. Yannick is playing a game at the fun fair. Twenty-five small metal boats are floating in a large tub. Twenty boats are marked "Too bad!" on the bottom. Four boats are marked "Take another turn." One boat is marked "You win!" Yannick uses a magnet on a stick to pull a boat from the water. Use words, fractions, decimals, and percents to describe each probability.
 - a) Yannick loses on his first turn.
 - b) Yannick gets a second turn.
 - c) Yannick wins on his first turn.
2. A spinner is divided into 10 equal sectors:
4 red, 3 yellow, 2 green, and 1 blue
Use a fraction and a percent to describe the probability of each event.
 - a) The pointer lands on red.
 - b) The pointer lands on yellow.
 - c) The pointer lands on green.

Name _____ Date _____

d) The pointer lands on brown.

Extra Practice 2**Lesson 3: Tree Diagrams**

1. Ramon is building birdhouses. He can use cedar, pine, or spruce wood. Each house has a round opening that measures 4 cm, 5 cm, or 6 cm across. Ramon paints each house blue or green. Draw a tree diagram to show all the possible bird houses Ramon can make.
2. A game consists of drawing a card from a set labelled A, B, C, D, E and rolling a cube numbered 1 to 6. To win, you must draw A and roll 1 on the same turn. Draw a tree diagram to show all the possible outcomes of the game. What is the probability that you will win on your first turn?

Lesson 5: Conducting Experiments

1. Work with a partner.
Remove the face cards from a standard deck of cards.
Shuffle the face cards and place them in a pile on the desk, face down.
 - a) What is the theoretical probability that the top card is:
 - a red queen?
 - a black king?
 - the jack of diamonds?Explain how you found each probability.
 - b) Turn over the top card and record the result.
Return it to the pile and reshuffle the cards.
Repeat for a total of 12 trials.
What is the experimental probability of turning over:
 - a red queen?
 - a black king?
 - the jack of diamonds?
 - c) Were the experimental probabilities the same as the theoretical probabilities? Explain why or why not.

Master

Sample Answers

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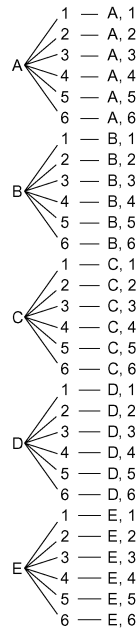
Lesson 1

1. Blue: unlikely; or
Green, yellow: unlikely, equally likely; or
Red: slightly more likely than blue; or
Black: most likely; or
2. a) or
b) or
c) 0
d)

Lesson 2

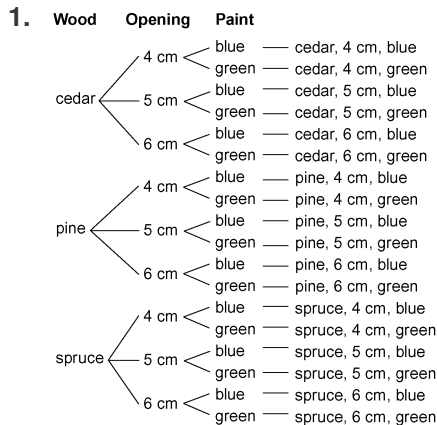
1. a) Likely; or ; 0.8; 80%
b) Unlikely; ; 0.16; 16%
c) Highly unlikely; ; 0.04; 4%
2. a) or ; 0.4; 40%
b) ; 0.3; 30%
c) or ; 0.2; 20%
d) 0; 0%

2. Card Cube



Extra Practice 2 – Master 11.18

Lesson 3



Lesson 5

1. a) or ; or ;
I counted the face cards and the number of cards of each description.
- b) Answers will vary depending on the experimental results.
- c) Answers will vary depending on the experimental results. If the number of trials is increased, the experimental probability would probably be closer to the theoretical probability.