Name _____ Date _____

Predicting the Outcome of Events - Guided Lesson

Complete the following problems:

1) Teresa has 5 numbered balls. She picks one at random.

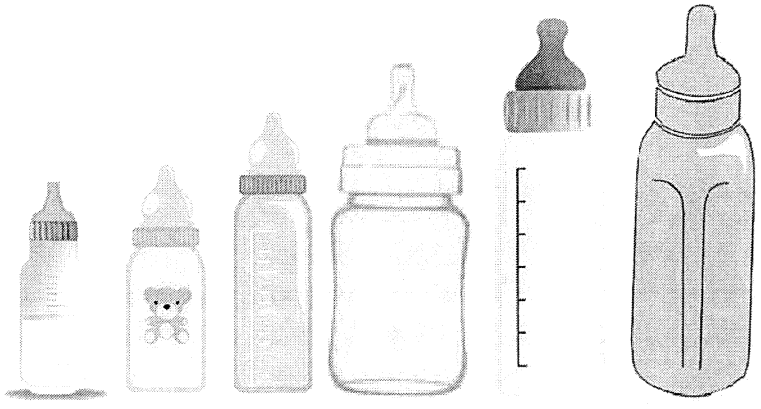
2 5 7 8 10

What is the probability of picking an even ball?

2) Rusty flips the coin and hangs a Christmas ornament at random. How many outcomes are possible?

A B C D

3) Mary is in a shop. She wants to purchase a baby milk bottle. But there are different sizes are available. The numbers indicate the size.



1 2 4 7 8 9

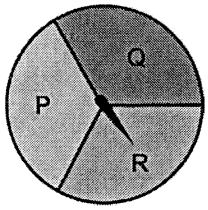
What is the probability of picking an odd numbered bottle?

Name _____ Date _____

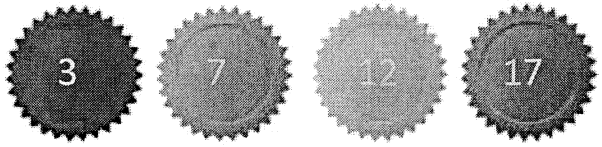
Predicting the Outcome of Events - Matching Worksheet

Match the word problems to their answers. Write the letter of the answer that matches the problem.

_____ 1. Philip spins the spinner 5 times and records the outcomes. Tell how many outcomes are possible?



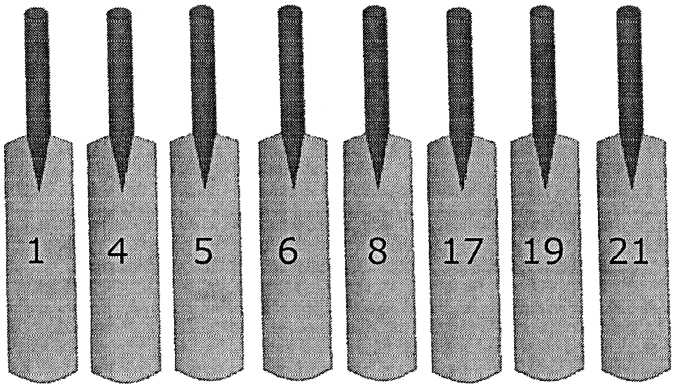
_____ 2. George has some tokens. He picks a token at random.



What is the probability of picking an even token?

_____ 3. Rachel flips a coin and chooses one drawing at random. If there are 2 drawings then how many outcomes are possible?

_____ 4. Addison picks a bat at random. What is the probability of picking an even bat?



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

b. $\frac{3}{8}$

c. 4

d. 243

Name _____ Date _____

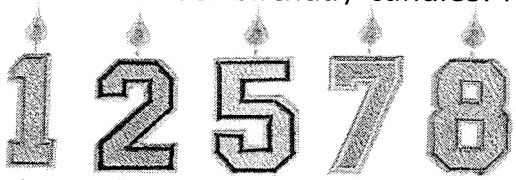
Predicting the Outcome of Events - Independent Practice Worksheet

Complete all the problems.

1. Nelson has 3 cards and 2 chocolates. He chooses one card and one chocolate at random. How many outcomes are possible for which chocolate and card he picks?

2. Luis flips a coin and then bursts a balloon at random. If he has 2 balloons then how many outcomes are possible?

3. Ryan has 5 number birthday candles. He picks a candle at random.

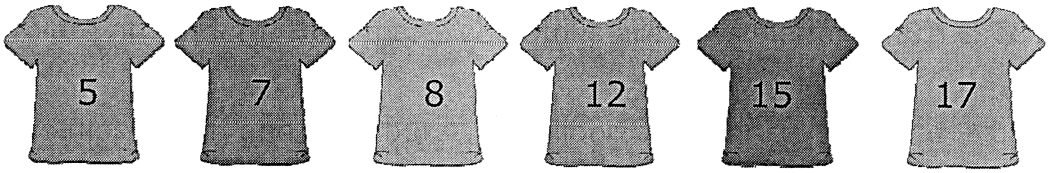


What is the probability of picking an even candle?

4. Liam has 3 games and 10 songs on his computer. How many outcomes are possible when randomly choosing a song and a game?

5. Madison chooses 1 of 6 coffees and plucks 1 of 4 flowers at random. How many outcomes are possible?

6. Xavier picks a number T-shirt at random.



What is the probability of picking an even numbered T-shirt?

7. Charlie has 7 cards, numbered 2, 3, 4, 5, 6, 7, 8, 9. What is the probability of picking an odd card?

8. Aidan writes numbers on his ten fingers as 5, 7, 9, 11, 13, 15, 16, 19, 22, 23. What is the probability of picking an even numbered finger?

9. Dylan flips a coin and chooses 1 toffee at random. If there are 25 toffees then how many outcomes are possible?

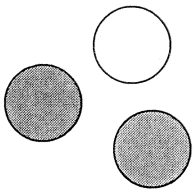
10. Edward flips a coin and fills 1 water bottle at random. If there are 8 water bottles to choose from then how many outcomes are possible?

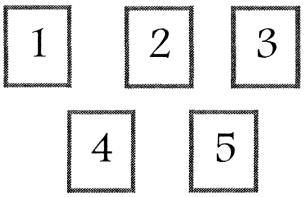
Name _____ Date _____

Generate Frequencies Through Design - Guided Lesson

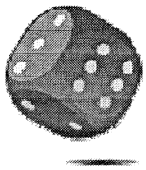
Complete the following problems:

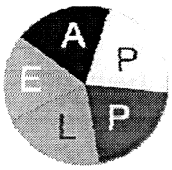
1) Joey picks a color dot and a card. How many outcomes are possible?

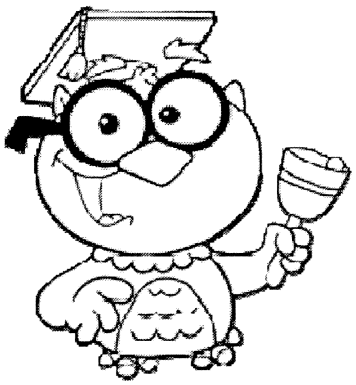




2) Isaac plays a game. He rolls a die and spins the spinner below. How many outcomes are possible?







3) Time to create a tree diagram.

a. How many ways can you arrange the letters of the word "JOHN"?

b. You write each letter of the word "JOHN" on a piece of paper and draw them out of a hat at random. What is the probability of drawing the letters "J-O-H-N" in that exact order? Every time you draw a letter, you place it back in the hat before the next draw.

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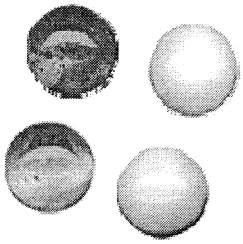
Generate Frequencies Through Design - Independent Practice Worksheet

Complete all the problems.

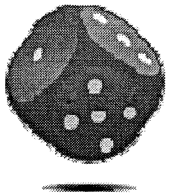
1. Stella flips a coin and picks a ball from below. How many outcomes are possible?



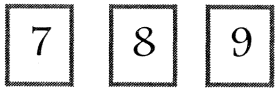
2. Mary plays a game. She picks a letter from one bag and a marble from another bag. How many outcomes are possible? Draw a tree diagram.

3. Julia writes the letters A, V, and C each on their own note card. She places the note cards in a box. If she draws the letters from the box randomly, what is the probability of drawing the letters A-V-C in that order? Each time she draws a letter, she replaces it.

4. Victor plays a game. He flips a coin and rolls a die. Draw a tree diagram of the outcomes.



5. Addison wants to know how many outcomes are possible if she draws a card from below and flips a coin.



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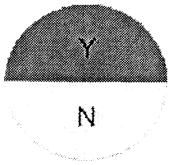
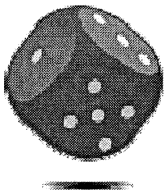
6. Gavin arranges the letters in the word SERA using a tree diagram. What is the probability of drawing the letters S-E-R-A in that order?

7. Naomi has a spinner with two possible outcomes. She wants to spin the spinner and roll a die. How many outcomes are possible?

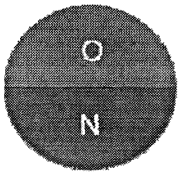




8. Alexander draws 9 different colored marbles from a bag and rolls a die. How many outcomes are possible?

9. James has a die and 7 different cards. He wants you to roll the die and choose a card. How many possible outcomes are there?

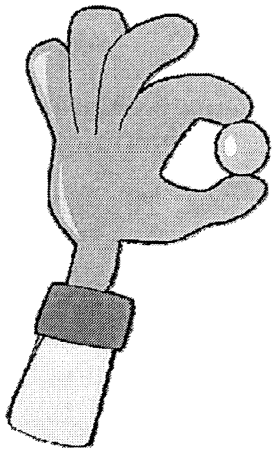
10. Brooklyn has a coin and the spinner below. She wants to flip the coin and spin a spinner. How many outcomes are possible?



Name _____ Date _____

Multiplication Rule of Probability - Guided Lesson

Complete the following problems:



1) Dena has a box with 7 blue marbles and 3 pink marbles. Two marbles are drawn without replacement from the box. What is the probability that both of the marbles are blue?

2) John is going to draw two cards from standard deck. What is the probability that the first card is a queen and the second card is a jack?

3) Emily has a folder of colored paper. The folder has 4 yellow color papers, 5 black color papers, 6 white color papers and 5 brown color papers. She picks one paper, record its color, puts it back in the folder and draws another paper. What is the probability of taking out a brown paper followed by a yellow paper?

Name _____ Date _____

Multiplication Rule of Probability - Independent Practice Worksheet

Complete all the problems.

1. Holly is going to draw two cards from a standard deck without replacement. What is the probability that the first card is a king and the second card is an ace?

2. Thomas has a box with 4 black color bottles and 8 gray color bottles. Two bottles are drawn without replacement from the box. What is the probability that both of the bottles are gray?

3. A jar contains colored stones that are 4 pink stones, 9 orange stones and 5 green stones. Ryan picks one stone, records its color and puts it back in the jar. Then he draws another stone. What is the probability of taking out an orange stone followed by the green stone?

4. Henry has 3 black shirts and 7 blue shirts in his wardrobe. Two shirts are drawn without replacement from the wardrobe. What is the probability that both of the shirts are black?

5. Andrew has a box which contains 4 pink blocks, 5 yellow blocks and 6 green blocks. He picks one block, records its color and puts it back in the box. He then draws another block. What is the probability of taking out a yellow block followed by the pink block?

6. Anna has 2 purple lipsticks, 3 red lipsticks and 3 pink lipsticks in her kit. She picks one lipstick, record its color, puts it back in the kit and draws another lipstick. What is the probability of taking out a purple lipstick followed by the red lipstick?

7. Jordan has 9 blue balls, 6 red balls and 5 brown balls in a box. Two balls are drawn without replacement from the box. What is the probability that both of the balls are brown?

8. Bella has 7 green beads, 10 yellow beads and 3 white beads in a pouch. Two beads are drawn without replacement from the pouch. What is the probability that both of the beads are yellow?

9. Finn has 4 pairs of black shoes and 4 pairs of brown shoes on his shoe rack. He picks one pair of shoes, record its color, puts it back on the rack. He then draws another shoe. What is the probability of taking out a black shoe followed by the brown shoe?

10. Caleb has 7 black caps, 4 yellow caps, and 9 blue caps in his wardrobe. Two caps are drawn without replacement from the wardrobe. What is the probability that both of the caps are blue?