NCLS Math 7 Lesson 13

5/20/2012

Name: _____

An experiment consists of randomly choosing a marble from a bag. Use the results in the table to find the experimental probability of each event.

Outcome	Frequency
Red	4
Blue	6
Green	6
Yellow	9

18. choosing a yellow marble

19. choosing a blue marble

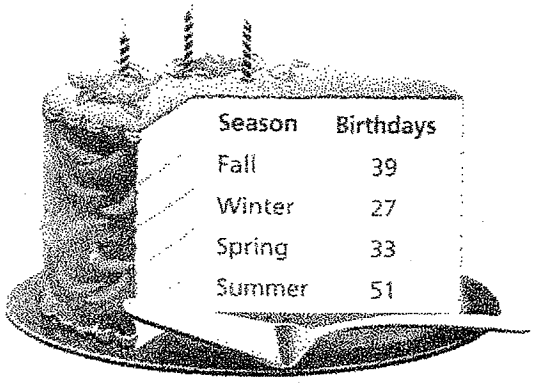
20. not choosing a green marble

21. **Sports** A ski lodge inspects 80 skis and finds 4 to be defective.

a. What is the experimental probability that a ski chosen at random will be defective?

b. The lodge has 420 skis. Predict the number of skis that are likely to be defective.

22. The table shows the results of a survey asking students the season of their birthday. What is the experimental probability that a student has a birthday during the summer?



Season	Birthdays
Fall	39
Winter	27
Spring	33
Summer	51

23. You and your friend can either go swimming or to a movie on Thursday. The weather forecast says there is a 70% chance of rain on Thursday. Should you plan on going swimming or to a movie? Explain.

24. **Critical Thinking** Tell why it is important to repeat an experiment many times.

Find the theoretical probability of each outcome.

14. rolling a 5 on a number cube

15. tossing 2 coins and 1 landing with heads showing, the other with tails showing

16. randomly choosing a blue marble from a bag of 5 blue marbles, 8 red marbles, and 7 yellow marbles

17. The probability of a spinner landing on yellow is $\frac{4}{9}$. What is the probability of it not landing on yellow?

18. There is a 3% probability of winning a game. Find the probability of not winning the game.

19. There is a 15% chance it will snow and a 15% chance it will rain. What is the probability that it will neither snow nor rain?

20. The odds against winning a contest are 99 : 1. What is the probability of not winning the contest?

21. The odds of choosing a white marble from a bag are 1 : 9. Find the probability of not choosing a white marble.

22. The probability of a spinner landing on green is 25%. What are the odds of the spinner not landing on green?

31. **Critical Thinking** The odds in favor of a certain event are the same as the odds against that event. What is the probability of the event occurring?