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Use the Fundamental Counting Principle to find the total number of possible outcomes.

2 8.

Beverage	
Size	Small, Medium, Large
Flavor	Root beer, Cola, Diet cola, Iced tea, Lemonade, Water, Coffee

9.

MP3 Player	
Memory	2 GB, 4 GB, 8 GB, 16 GB
Color	Silver, Green, Blue, Pink, Black

3 10.

Clown	
Suit	Dots, Stripes, Checkers board
Wig	One color, Multicolor
Talent	Balloon animals, Juggling, Unicycle, Magic

11.

Meal	
Appetizer	Nachos, Soup, Spinach dip, Salad, Fruit
Entrée	Chicken, Beef, Spaghetti, Fish
Dessert	Cake, Cookies, Ice cream

12. **NOTE CARDS** A store sells three types of note cards. There are three sizes of each type. Show two ways to find the total number of note cards the store sells.

13. **ERROR ANALYSIS** A true-false quiz has five questions. Describe and correct the error in using the Fundamental Counting Principle to find the total number of ways that you can answer the quiz.

X $2 + 2 + 2 + 2 + 2 = 10$
 You can answer the quiz in 10 different ways.



14. **CHOOSE TOOLS** You randomly choose one of the marbles. Without replacing the first marble, you choose a second marble.

- Name two ways you can find the total number of possible outcomes.
- Find the total number of possible outcomes.

You spin the spinner and flip a coin. Find the probability of the compound event.

- 4 15. Spinning a 1 and flipping heads
16. Spinning an even number and flipping heads
17. Spinning a number less than 3 and flipping tails
18. Spinning a 6 and flipping tails
19. *Not* spinning a 5 and flipping heads
20. Spinning a prime number and *not* flipping heads



You spin the spinner, flip a coin, then spin the spinner again. Find the probability of the compound event.



- 5 21. Spinning blue, flipping heads, then spinning a 1
22. Spinning an odd number, flipping heads, then spinning yellow
23. Spinning an even number, flipping tails, then spinning an odd number
24. *Not* spinning red, flipping tails, then *not* spinning an even number