Compound Events

Suppose you roll a number cube labeled 1–6 and spin the spinner once. Find the probability of each compound event.

1. $X$ and 4
2. $Z$ and an even number
3. $Z$ and a number less than 5
4. $Y$ and a number greater than 1
5. $X$ or $Y$ and an odd number
6. not $Z$ and 3
7. $Z$ and not odd
8. $X$ or $Z$ and 1 or 2

Suppose you spin each spinner once. Find the probability of each compound event.

9. heart and 4
10. star and 3
11. plus sign or star, and 2
12. triangle, and 2 or 6
13. circle or star, and even
14. plus sign and less than 6

Test Prep

15. There are 8 marbles in a bag. One is red, 1 is blue, 1 is yellow, 1 is purple, 1 is orange, 1 is black, 1 is white, and 1 is green. You select a marble and toss a coin. What is the probability of getting a green marble and tails?

A $\frac{1}{2}$  
B $\frac{1}{4}$  
C $\frac{1}{8}$  
D $\frac{1}{16}$

16. The Science Fiction Club decided to choose a president by rolling number cubes labeled 1–6. The first one to roll double fives would be president. What is the probability that Samantha would become president on her first roll?