

## SKILL

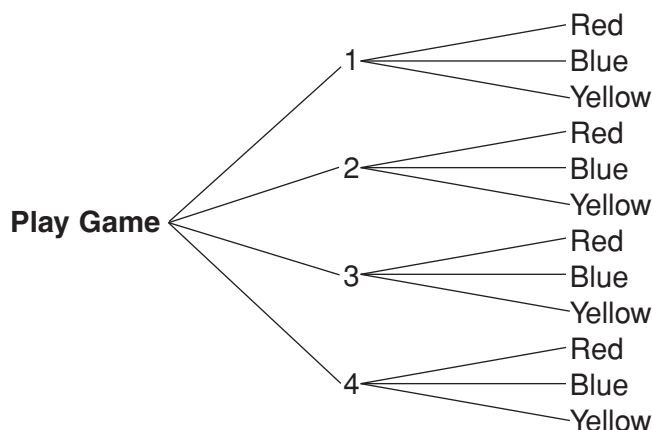
90

**Skills Readiness****Tree Diagrams**

Tree diagrams can be used to organize all the possible outcomes in a sample space, particularly when an experiment involves more than one event.

**Example:** Marie is playing a game in which she must spin two spinners. The first spinner is divided into four equal sections, each numbered 1, 2, 3, or 4. The second spinner is divided into three equal sections, one that is red, one blue, and one yellow. Draw a tree diagram showing all the possible combinations of numbers and colors that Marie could spin.

**Answer:** Since there are two events, there should be two sets of branches. One set will represent the first spin and should include all four numbers as possibilities. The second set will represent the second spin and should include all three colors on each of the number branches.

**Practice on Your Own**

Elizabeth is at a carnival. She is playing a game that asks her to pick a door and then pick a curtain behind the door. There are 3 doors and 4 curtains behind each door. Draw a tree diagram showing all possible ways that Elizabeth could choose a door and a curtain behind the door.

**Play  
Game**

**Check**

Mark gets to choose a snack when he gets home from school. He can have plain or chocolate milk to drink, and either a piece of fruit, popcorn, or peanut butter sticks to eat. Draw a tree diagram showing all possible snacks that Mark could choose if he gets only one drink and one thing to eat.

**Snack  
Choices**