

## Sample Spaces and The Counting Principle

**Represent the sample space using set notation.**

- 1) A sandwich shop has three types of sandwiches: ham, turkey, and chicken.
- 2) The chess club must decide when to meet for a practice. The possible days are Tuesday, Wednesday, or Thursday.
- 3) The chess club must decide when to meet for a practice. The possible days are Tuesday, Wednesday, or Thursday. The possible times are 3, 4, or 5 p.m.
- 4) When a button is pressed, a computer program outputs a random odd number greater than 1 and less than 9. You press the button twice.
- 5) A spinner can land on either red or blue. You spin and then roll a six-sided die.
- 6) There are two boys and a girl on a trivia team. Two questions remain. One team member is randomly picked to answer the first question and a different member is picked to answer the second question.

**Find the number of possible outcomes in the sample space.**

- 7) A jewelry store sells gold and platinum rings. Each ring is fitted with a ruby, sapphire, emerald, or diamond gemstone.
- 8) A spinner can land on either red, blue, or green. You spin twice.
- 9) Eight rooms in a house need to be painted. Each room can be painted white or yellow.
- 10) Six books need to be placed on a shelf. You randomly arrange the books on the shelf from left to right.