**13-1 Representing Sample Spaces**

**Exercises**

**Represent the sample space for each experiment by making an organized list, a table, and a tree diagram.**

 **1.** The baseball team can wear blue or white shirts with blue or white pants.

 **2.** The dance club is going to see either *Sleeping Beauty* or *The Nutcracker* at either Symphony Hall or
The Center for the Arts.

 **3.** Mikey’s baby sister can drink either apple juice or milk from a bottle or a toddler cup.

 **4.** The first part of the test consisted of two true-or-false questions.

 **5.** Alanna can spend the summer with her cousins or her grandparents at the lake or at the beach.

 **6.** Jordan can write his final essay in class or at home on a scientific or an historical topic.

**13-1 Fundamental Counting Principle**

**Exercises**

**Find the number of possible outcomes for each situation.**

 **1.** A room is decorated with one choice

 from each category.

|  |  |
| --- | --- |
| Bedroom Décor | Number ofChoices |
| Paint color | 8 |
| Comforter set | 6 |
| Sheet set | 8 |
| Throw rug | 5 |
| Lamp | 3 |
| Wall hanging | 5 |

**2.** A lunch at South Grand Prairie High School

 contains one choice from each category.

|  |  |
| --- | --- |
| Cafeteria Meal | Number ofChoices |
| Main dish | 3 |
| Side dish | 4 |
| Vegetable | 2 |
| Salad | 2 |
| Salad Dressing | 3 |
| Dessert | 2 |
| Drink | 3 |

**3.** In a catalog of outdoor patio plans, there are 4 types of stone, 3 types of edgers, 5 dining sets and 6 grills.
 Carl plans to order one item from each category.

 **4.** The drama club held tryouts for 6 roles in a one-act play. Five people auditioned for lead female, 3 for lead male,
8 for the best friend, 4 for the mom, 2 for the dad, and 3 for the crazy aunt.

**5.** Joni wears a school uniform that consists of a skirt or pants, a white shirt, a blue jacket or sweater, white socks and black shoes. She has 3 pairs of pants, 3 skirts, 6 shirts, 2 jackets, 2 sweaters, 6 pairs of socks and 3 pairs of black shoes.

**6.** Chloe is buying a laptop. She has a choice of 3 hard drive sizes, 3 processor speeds, 4 colors,
2 screen sizes, 2 warranty options, and 4 cases. She knows she wants a blue laptop with the longest warranty. How many choices does she have for laptops?