

Name : \_\_\_\_\_

Score : \_\_\_\_\_ Date : \_\_\_\_\_

## Fundamental Counting Principle

Direction : Use the fundamental counting principle to answer the following questions

1. How many even 3-digit positive integers can be written with the digits 1,2,4,7, and 8? (Use digit repetition).

\_\_\_\_\_

2. How many different 7-digit phone numbers are possible if no phone number begins with 0 and repetition of digits is not permitted.

\_\_\_\_\_

3. Christopher has 12 shirts, 6 pairs of pants, and 3 pairs of socks. How many different combinations of outfits can he choose with a shirt, pair of pants, and pair of socks?

\_\_\_\_\_

4. In how many ways can 5 table lamps be lined up on a table?

\_\_\_\_\_

5. A lock has 4 dials. Each dial has the digits 0 to 9. How many 4-digit numbers can be made with the dials?

\_\_\_\_\_

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# Fundamental Counting Principle

## Answer

1. How many even 3-digit positive integers can be written with the digits 1,2,4,7, and 8? (Use digit repetition).

75

2. How many different 7-digit phone numbers are possible if no phone number begins with 0 and repetition of digits is not permitted.

5,44,320

3. Christopher has 12 shirts, 6 pairs of pants, and 3 pairs of socks. How many different combinations of outfits can he choose with a shirt, pair of pants, and pair of socks?

216

4. In how many ways can 5 table lamps be lined up on a table?

120

5. A lock has 4 dials. Each dial has the digits 0 to 9. How many 4-digit numbers can be made with the dials?

10,000