Lesson 10.1 Practice: The Counting Principle and Permutations

School Launch · Algebra II · Unit 10: Counting, Probability and the Binomial Theorem · Worksheet A

Calculator for decimals

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. In how many ways can 3 officers (president, vice-president, secretary) be chosen from 7 members? EASY

2. In how many ways can 2 officers (president, vice-president) be chosen from 9 members? EASY

3. In how many ways can 2 officers (president, vice-president) be chosen from 10 members? EASY

4. In how many ways can 4 officers (president, vice-president, secretary, ...) be chosen from 8 members? MEDIUM

5. In how many ways can 3 officers (president, vice-president, secretary) be chosen from 5 members? MEDIUM

6. In how many ways can 4 officers (president, vice-president, secretary, ...) be chosen from 12 members? MEDIUM

7. In how many ways can 2 officers (president, vice-president) be chosen from 8 members? MEDIUM

8. How many distinguishable arrangements of the letters of TENNESSEE are there? HARD

9. How many distinguishable arrangements of the letters of LETTER are there? HARD

10. How many distinguishable arrangements of the letters of BOOKKEEPER are there? HARD