



I'm not robot



**I am not robot!**

Combinations. If the order of the items is important, use a permutation. In statistics, there are two ways to count or group items. Rearrangements of the same items are in different sequences. Once the president is chosen, there are choices left for the office of vice-President. The order of the items is important. Identify it. How many? The distinguishing aspects of the two different types of counting methods are as follows: Permutations. For both permutations and combinations, there are certain requirements that must be met. Use the Fundamental Counting Principle. FACT: Any problem that could be solved by using  $P(n,r)$  could also be solved with the FCP. Choosing a three-number "combination" having no repeated numbers requires that we make three decisions. When using the Fundamental Counting Principle in a situation involving dependent decisions, if one Note: The difference between a combination and a permutation is whether order matters or not. Firstly however we must look at the Fundamental Principle of Counting (sometimes referred to as the The fundamental counting principle states that it will be the number of outcomes of the first even (two) multiplied by the number of outcomes of the second (two), therefore the Next, we will learn how to count the number of permutations and combinations. If she owns necklaces, bracelets, and rings, how many different jew Probability is expressed as a number from 0 to 1. It is written as a fraction, decimal, or percent. If the order of the items is not important, use a combination. Identify some of them and verify that you can get the correct solution by using  $P(n,r)$ . One of these decisions, however, has a special condition attached to it (the third number must be either 0 or 1). You will then explore permutations, which are used when the outcomes of Apply the Fundamental Counting Principle. an impossible event has a probability of 0. An event that must occur has a probability of 1. The sum of the probabilities of all outcomes in a sample space is 1. The probability of an event can be assigned in two ways. The required number of words =  $n \times r$  (by using multiplication principle). In this unit you will begin by learning the fundamental counting principle and applying it to probabilities. e, one bracelet, and one ring. er of ways an event can occur. Once the Vice-President is chosen, there are choices for secretary and then choices for treasurer. Many of the examples from PART MODULE could be solved with the permutation formula as well as the fundamental counting principle. Now here are a couple examples where we have to figure out whether it is a permutation or a combination. Fundamental Counting Principle: Purpose: Determine the num. Example: Katrina plans on wearing one necklace. The items do not have to be in any particular order. There are choices for president. How do some businesses, such as life insurance companies and gambling establishments, make dependable profits on events Using the fundamental counting principle:  $\underline{10} \cdot \underline{9} \cdot \underline{8} = \text{number}$  There are different ways for cars to finish in the top particular this chapter looks at permutations and combinations. If the repetition of the letters was allowed, the required number of words would be  $n \times r$ . Definition: A permutation is an arrangement in a definite order of a number of objects taken some or all at a time. Both counting methods have  $n$  different items available, taken  $r$  at a time. The number of permutations (arrangements) without replacement of  $r$  objects from a group of  $n$  objects is  $P(n,r)$ . What is the Fundamental counting Principle? ways can (an event) occur?" Use it: Multiply together. It gives you a way to work out how different things can be arranged and in how many different ways they can be arranged.