Unit: 3. COUNTING PRINCIPLES
VOCABULARY
alternating sequence $A$ sequence in which each successive term changes sign.
arithmetic series A series with common difference between terms.
binomial coefficients The coefficients that you obtain from expanding $(a+b)^{n}$ circular permutation An ordering of elements in a circle or closed curve. coefficient A factor in an expression, usually referring to the numerical factor in an algebraic expression.
combination A subset of a given set of elements, without regard for order.
compound events Events involving two or more activities.
conditional probability The probability of one event given that another event has already occurred.
correspondence An association between members of one set and those of another set.
event
factorial
finite
general term
geometric series

A combination of one or more of the possible outcomes of an activity.

The product of all the natural numbers from a given integer down to 1 .

Possible to reach or exceed by counting
A formula that yields the value of a term in a sequence when the term's position in the sequence is substituted into the formula.

A series with a common ratio between terms.

| independent events | Events whose outcomes do not affect the probability of each other. |
| :---: | :---: |
| infinite | Endless or without bounds. |
| natural numbers | The positive integers. |
| outcome | One of the mutually exclusive results of an activity. |
| Pascal's Triangle | The coefficients of powers of a binomial, arranged to form a triangle. |
| permutation | An arrangement of the elements of a set in a specific order. |
| probability | A number expressing the likelihood that a specific event will |
|  | occur, expressed as the ratio of the number of actual |
|  | occurrences to the number of possible occurrences. |
| random | By chance; with no plan. |
| ratio | The quotient of two numbers. |
| rotation | The process of moving around a center. |
| sequence | A group of numbers arranged in a definite order, with a |
|  | specific first term. |
| series | The summation of the terms of a sequence. |
| subset | A set of elements contained in a given set. |
| summation | Addition. |
| symmetry | Exact correspondence of form and constituent configuration |
|  | on opposite sides of a dividing line or plane or about a center |
|  | or an axis. |

term A number or symbol separated from other numbers or symbols by a comma (in a sequence) or an arithmetic symbol (in an equation).

Vocab Arcade

## INTERNET LINKS

## Lesson 2

Series and Sequences

## Lesson 9

Probability Problems and Demonstrations

## Lesson 12

Probability

