## 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) <sup>n</sup>
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 probabilit	yThe 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	A combination of one or more of the possible outcomes of an
	activity.
factorial	The product of all the natural numbers from a given integer
	down to 1.
finite	Possible to reach or exceed by counting
general term	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.
geometric series	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

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Lesson 2

Series and Sequences

Lesson 9

Probability Problems and Demonstrations

Lesson 12

**Probability**