Vocabulary

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Use the vocabulary words and definitions below as a reference for this unit.

braces { } ..... grouping symbols used to express sets

Cartesian cross product..... a set of ordered pairs found by taking the x-coordinate from one set and the y-coordinate from the second set

complement ..... the set of elements left over when the elements of one set are deleted from another

coordinate grid or **plane** ... a two-dimensional network of horizontal and vertical lines that are parallel and evenly spaced; especially designed for locating points, displaying data, or drawing maps

counting numbers
(natural numbers) ..... the numbers in the set {1, 2, 3, 4, 5, …}

element or **member** ..... one of the objects in a set

empty set or **null set (ø)** ... a set with no elements or members

even integer..... any integer divisible by 2; any integer with the digit 0, 2, 4, 6, or 8 in the units place; any integer in the set {… , -4, -2, 0, 2, 4, …}

expression ..... a mathematical phrase or part of a number sentence that combines numbers, operation signs, and sometimes variables
Examples: $4r^2$; $3x + 2y$; $\sqrt{25}$
An expression does *not* contain equal (=) or inequality (<, >, ≤, ≥, or ≠) signs.

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finite set ..... a set in which a whole number can be used to represent its number of elements; a set that has bounds and is limited

infinite set ..... a set that is not finite; a set that has no boundaries and no limits

integers ..... the numbers in the set {… , -4, -3, -2, -1, 0, 1, 2, 3, 4, …}

intersection (∩) ..... those elements that two or more sets have in common

member or **element** ..... one of the objects in a set

natural numbers (counting numbers) ..... the numbers in the set {1, 2, 3, 4, 5, …}

null set (ø) or **empty set** ... a set with no elements or members

ordered pair ..... the location of a single point on a rectangular coordinate system where the first and second values represent the position relative to the x-axis and y-axis, respectively
Examples: (x, y) *or* (3, -4)

pattern (relationship) ..... a predictable or prescribed sequence of numbers, objects, etc.; may be described or presented using manipulatives, tables, graphics (pictures or drawings), or algebraic rules (functions)
Example: 2, 5, 8, 11 … is a pattern. Each number in this sequence is three more than the preceding number. Any number in this sequence can be described by the algebraic rule, $3n - 1$, by using the set of counting numbers for n.

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point ..... a specific location in space that has no discernable length or width

positive integers ..... integers greater than zero

relation ..... a set of ordered pairs (x, y)

roster ..... a list of all the elements in a set

rule ..... a description of the elements in a set

set ..... a collection of distinct objects or numbers

union ($\cup$) ..... combination of the elements in two or more sets

Venn diagram ..... overlapping circles used to illustrate relationships among sets

***x*-coordinate** ..... the first number of an ordered pair

***y*-coordinate** ..... the second number of an ordered pair