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| j0307656[2] | **Math 7/8**  **Unit 7 Functions** |
| Volume 1 Issue 4 |  |
| **References**  Glencoe/McGraw-Hill Georgia Math 7 Plus Volume 2, Chapter 10 Lessons 1-2  Glencoe/Mcgraw-Hill, Georgia Math 8, Text Online: connected.mcgraw-hill.com  **Challenges:**  [www.figurethis.org](http://www.figurethis.org)  **Links:**   * + <http://www.purplemath.com/modules/fcns.htm>   + <http://www.purplemath.com/modules/fcns2.htm>   + <http://www.shodor.org/interactivate1.0/lessons/fm2.html>   + <http://www.mathgoodies.com/lessons/vol6/independent_events.html>   + <https://mathbitsnotebook.com/Algebra1/Functions/FNFuncBasics.html>   + <https://mathbitsnotebook.com/Algebra1/Functions/FNDomainRange.html> | **Dear Parents** Below you will find a list of concepts that your child will use and understand while completing Unit 7: Functions. Also included are references, vocabulary and examples that will help you assist your child at home. **Concepts Students will Use and Understand**  * Recognize a relation as a correspondence between varying quantities. * Recognize a function as a correspondence between inputs and outputs where the output for each input must be unique. * Distinguish between relations that are functions and those that are not functions. * Recognize functions in a variety of representations and a variety of contexts. * Identify relations and functions as linear or nonlinear. * Translate among verbal, tabular, graphic, and algebraic representations of functions.  **Vocabulary** **Domain:** The set of x-coordinates of the set of points on a graph; the set of x-coordinates of a given set of ordered pairs. The value that is the input in a function or relation.  **Function:** A rule of matching elements of two sets of numbers in which an input value from the first set has only one output value in the second set.  **Graph of a Function:** The set of all the points on a coordinate plane whose coordinates makes the rule of function true.  **Input:** The set of possible values for the first coordinate of a function (domain.)  **Output:** The set of possible values for the second coordinate of a function (range.)  **Range:**  The y-coordinates of the set of points on a graph. Also, the y-coordinates of a given set of ordered pairs. The range is the output in a function or a relation.  **Range of function:** The set of all output values or the y-values of a function or a relation is called the range of the function or the relation.  **Relation:** A rule that gives an output number for every valid input number  Additional Vocabulary Help:  <http://intermath.coe.uga.edu/> |

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| j0307656[2] | **Math 8 Unit 4 Functions** |
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|  | **Examples**:    1. Graph the sequence on a coordinate plane: 2, 5, 8, 11, … (hint: the domain is the position of the term) Is the graph a function and is it linear or nonlinear? 2. What makes a relation a function? 3. Identify which of the following are functions:   A. B. C.  D. y=3x+5    E. {senators, states}  F. {states, senators}  G. {(1,2), (2,3), (1,4), (4,1)} |
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|  | **Key**     1. (1, 2), (2, 5), (3, 8), (4, 11); yes, a linear function. 2. A relation is a function when every input has one unique output. 3. A, B, D, E |
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