

## Function Vocabulary:

- Domain - set of x-values
- Range - set of y-values
- Roots - x-intercepts, zeros, solutions
- Symmetry - graph remains unchanged when reflected about an axis or the origin
- x-axis Symmetry - replace y with -y  
 $(x, y) \rightarrow (x, -y)$

- y-axis Symmetry - replace x with -x  
 $(x, y) \rightarrow (-x, y)$
- Origin Symmetry -  $(x, y) \rightarrow (-x, -y)$   
- same as  $180^\circ$  rotation

- Even - Symmetric with respect to y-axis  
(SWRT)  
\*  $f(-x) = f(x)$

- Odd - SWRT origin  
\*  $f(-x) = -f(x)$

- Periodic - graph repeats itself identically

- \* HLT • One-to-One - every element in range corresponds to exactly one element in domain