

## Relations: Defining Characteristics

Math 130 *Kovitz*

- Domain and Range
- $x$  and  $y$ -Intercepts
- Is it one-to-one?
- Quadrants in which points on the graph lie
- Maxima and Minima (highest and lowest points on graph), absolute and local
- Asymptotes
- Continuous? Where?
- Endpoints of Graph
- Increasing or Decreasing? Where?
- Concave Up or Concave Down? Where?
- Symmetries of the graph
- Vertex (if there is only one line symmetry)
- Decide whether the relation is a Function

## Functions: Defining Characteristics

- Odd, Even, Neither, or Both
- Periodic
- If periodic with an absolute maximum and an absolute minimum: amplitude
- Decomposable into a composition of functions (not necessary unique)