Coreq Support for Section 3.6

**Topic 1: Sketching the Graphs of the Basic Functions**

**Topic 2: Sketching the Graphs of Basic Functions with Restricted Domains**

**Topic 3: Using Vertical or Horizontal Shifts to Graph Functions**

**(Video: Graphing Piecewise-Defined Functions; Shifting/Reflecting Graphs of Functions 14:32 – 31:22)**

Recall from section 3.4 that for a positive number $c$:

* The graph of $g\left(x\right)=f\left(x\right)+c$ is the graph of $y=f(x)$ shifted $c$ units upward.
* The graph of $g\left(x\right)=f\left(x\right)-c$ is the graph of $y=f\left(x\right)$ shifted $c$ units downward.
* The graph of $g\left(x\right)=f\left(x-c\right)$ is the graph of $y=f(x)$ shifted $c$ units to the right.
* The graph of $g\left(x\right)=f\left(x+c\right)$ is the graph of $y=f\left(x\right)$ shifted $c$ units to the left.

**Topic 4**: Determining the Domain and Range of a Function from its Graph

**Topic 5: Graphing Piecewise-Defined Functions**

**(Video: Graphing Piecewise-Defined Functions; Shifting/Reflecting Graphs of Functions 0:00 – 9:48)**

Recall from section 3.3 that a **piecewise-defined function** is a function defined by two or more expressions.

# Topic 6: Rearranging an Equation to Solve for $y$

# Topic 7: Finding Function Values from a Graph