

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 $y = f(x) + c$ is obtained by shifting the graph of $y = f(x)$ upward c units.

The graph of $y = f(x) - c$ is obtained by shifting the graph of $y = f(x)$ downward c units.

The graph of $y = f(x + c)$ is obtained by shifting the graph of $y = f(x)$ to the left c units.

The graph of $y = f(x - c)$ is obtained by shifting the graph of $y = f(x)$ to the right c units.

Topic 4: 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 different rules on different parts of its domain.

Topic 5: Rearranging an Equation to Solve for y

Topic 6: Finding Function Values from a Graph