Questions

Note: In Section 2.3 we will learn a significantly better way to sketch graphs than using a table of ordered pairs, which involves *graphical transformations*. Using a table of ordered pairs you can miss important features of the function.

1. Make a table listing some ordered pairs for the function $f(x) = \begin{cases} \sqrt{x+2} \text{ if } -2 \leq x \leq 2 \\ 4 - x \text{ if } x > 2 \end{cases}$

Then, sketch the graph and state the domain and range, and identify any intervals in which f is increasing, decreasing, or constant.

2. Make a table listing some ordered pairs for the function $f(x) = \lfloor x \rfloor + 2$ for $0 \leq x < 4$.

(Note $\lfloor x \rfloor$ is the greatest integer function)

Then, sketch the graph and state the domain and range, and identify any intervals in which f is increasing, decreasing, or constant.

3. Determine the algebraic formula for the following graph of a piecewise function: