

1.1 - Piece-wise Defined Functions (Defined in pieces - graphed in pieces)

$$1. f(x) = |x| = \begin{cases} x, & x \geq 0 \\ -x, & x < 0 \end{cases}$$

$$2. f(x) = \begin{cases} x, & x < 0 \\ \sqrt{x}, & x \geq 0 \end{cases}$$

$$3. f(x) = \begin{cases} 2, & -3 \leq x < 0 \\ x - 1, & 0 \leq x \leq 2 \\ x^2, & 2 < x \leq 3 \end{cases}$$