To graph a piecewise-defined function, each piece of the function along with the x-interval for which the piece is defined must be entered into the \( y = \) screen.

For example, examine how the 3-piece function below is entered.

\[
f(x) = \begin{cases} 
  x^2, & x < 1 \\
  x + 2, & 1 \leq x \leq 4 \\
  8 - x, & x > 4 
\end{cases}
\]

Note that parentheses must be placed around each inequality statement and each piece of the function if there is more than one term. The inequalities are found in the TEST menu, which is accessed by pressing \( \text{2nd} \ \text{MATH} \).

To prevent the different pieces from being connected as the function is graphed, press \( \text{MODE} \) and select DOT.

Adjust the viewing window (if necessary) and press \( \text{GRAPH} \) to see the graph.