1. Let $f(x) = 2|x| - |x - 3|$. 

(a) Use the definition of absolute value to rewrite $f$ as a piecewise-defined function.

(b) Graph $y = f(x)$. Find the zeros of $f$ and the $x$- and $y$-intercepts of the graph. From the graph, determine the domain and range of $f$, list the intervals on which $f$ is increasing, decreasing, or constant, and find the relative and absolute extrema, if they exist.