Let $f(x) = \frac{10x}{x^2 + 1}$.

1. Find the domain of $f$. Write your answer using interval notation.

2. Find the $x$- and $y$-intercepts of the graph of $y = f(x)$.

3. Is $f$ even, odd, or neither? Explain.

4. Use a graphing utility to graph $y = f(x)$. From the graph, approximate the intervals over which $f$ is increasing and the intervals over which it is decreasing. List the local maximums and minimums, if they exist, and approximate the range of $f$. 