

HOMEWORK 3

MATH 243

10.3.50

First, determine at what values of θ you have $r \rightarrow \pm\infty$. Then, find y in terms of θ . Use these facts to show that $y \rightarrow -1$ as $r \rightarrow \pm\infty$.

For making a plot, the usual recommendation is to first plot r in terms of θ , but for this one you need to know y in terms of θ as well in order to get an accurate digram. Also, to help you plot, determine at what values of θ you have $r = 0$.

Your explanation should demonstrate your ability to plot this curve without using a calculator or a computer.

10.4.44

This problem takes some time. If you encounter an angle that is approximately 21° , you're on the right track.