Given problem: Consider the rational function $p = \frac{512500v^2 - 449000v + 19307}{125v^2(1000v - 43)}$

This function is based on the van der Waals equation for predicting the pressure p of a gas as a function of v at a fixed temperature. The function above models the pressure p of a carbon dioxide in terms of volume v if the temperature is 500 Kelvins.



1. Sketch the graph of the function. (10 points)

3. What is/are the vertical asymptote(s) of the function? (1 point)

125v²(1000v-43)=0