Sierra Bettis

HWRS482

<div align="center">The Challenge_HW2</div>

From the graph that I made, it is shown that there is a steady state, which means that the flux is also constant regardless of the change in head. This is the same for the homogenous and heterogenous graphs.

The energy loss is greater for small K values and the system is most sensitive where there is an energy loss, so the Keq is closer to the lower values of K. The energy is the square of the gradient, so the energy loss is even greater with a low K medium.

The horizontal effective K is parallel to flow and must preserve the flux but not the head. The effective K for the 1D system vs the 2D system could potentially be the medium that the water passes through? Since for the 2D we were only given K and head values. The Keq value would probably be closer to the lower K values based off of what was described in the second part of the challenge, since it would take more energy for the low K values resulting in a shift toward the smaller values.