

TD 609- Quiz 3

1. Two ends of a strip of land 3 km long are held at heads 40m and 50m respectively. The elevation of top of the strip is 60m and the soil is 60m thick with $K = 1m/d$. Divide the strip into 3 cells each of length 1km. See figure. Suppose that this strip receives an infiltration of q (in mm/day).
 - (a) Compute h_1, h_2 and h_3 in terms of q . Make the thick aquifer assumption with thickness 60m.
 - (b) For what rate q will the water table in the strip reach the top?
 - (c) Can this problem be done analytically? In other words, can h be computed as a function of x ? If so, just state the equations that you will use.

