GLY 5826

Assignment 10:

1. Solve for the pressure drops and the flow in each fracture in the following fracture network where the apertures and lengths. Show all steps. Assume the pressure drop across the entire network is 1 kg m^{-1} s^{-2}, that the depth of the fractures into the plane of the paper is 1m, and that the factor $12\mu = 12 \times 10^{-3}$ kg m^{-1} s^{-1}. Create a table that lists fracture identifier, pressure drop and flow.

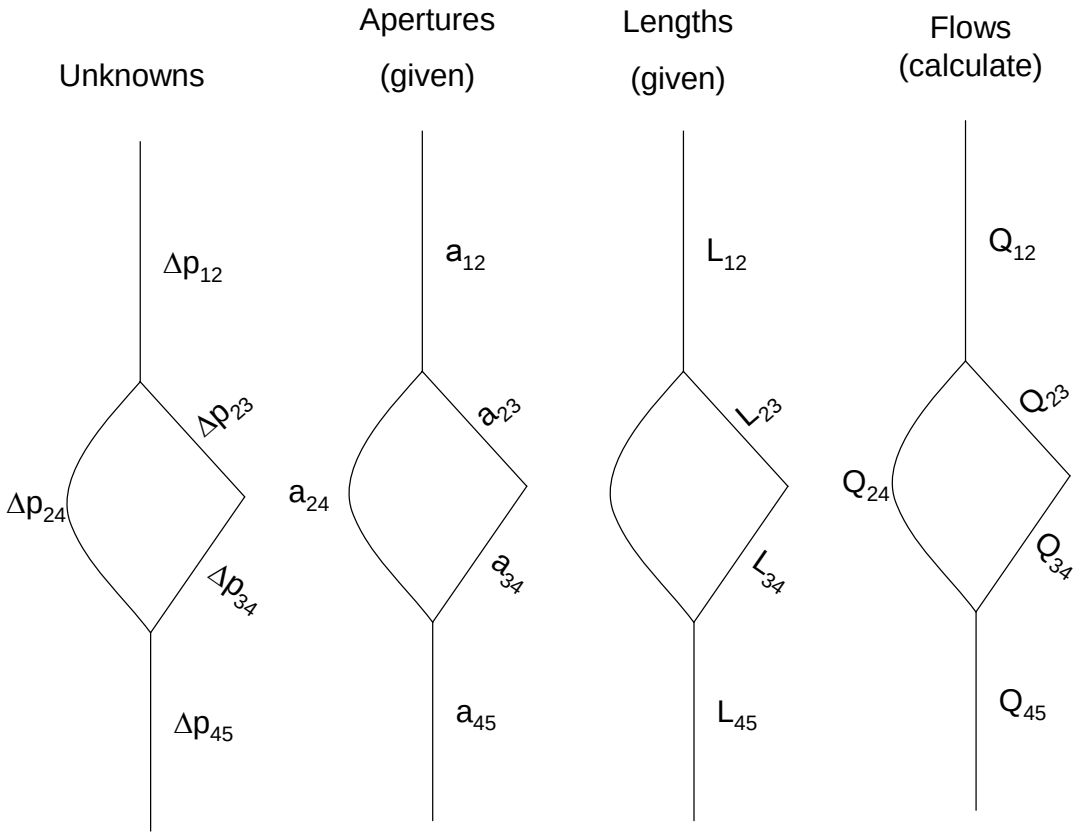

Table 1. Fracture properties

Fracture Segment	Aperture (mm)	Length (m)
1-2	1	2
2-3	2	8
3-4	1	1
2-4	2	3
4-5	1	2