

Exercise no. 4

Rating curve

On the basis of the values of water stages and the corresponding discharges, calculate the rating curve characterizing the H-Q relationship.

1. Log (Q), Log(H)
2. Point graph of the pairs [Log(H); Log(Q)]
3. In the graph, show the trend (regression) line and its equation
4. From the equation, read the value of a and b
5. Apply logarithm on the equation $Q = c \cdot H^a$
6. $b = \log c \Rightarrow c = 10^b$
7. Create the equation of the rating curve putting the values of a and c
8. For water stages ranging from 0,01 m to 0,75 m calculate the corresponding discharges
9. Draw the rating curve in a graph (from the calculated pairs [Q, H])
10. The final graph together with the rating curve's equation = result.