1. Annual precipitation in a particular year was measured to be 70 cm over a lake with 200 km$^2$ surface area. The mean annual inflow and outflow discharges by the rivers to this lake is given as 1.20 m$^3$/s and 127 m$^3$/s, respectively. A 9 cm rise was observed for that year. The leakage from the lake bottom is negligibly small. Considering given data calculate the annual evaporation depth of the lake for that particular year.

2. The reservoir capacity of a small dam constructed to supply water to a nearby town is 14x$10^6$ m$^3$. At the beginning of February there is 8x$10^6$ m$^3$ water in the reservoir. The precipitation and evaporation depths for this month are given as 120 mm and 35 mm, respectively. The inflow during February is 6.7x$10^6$ m$^3$, and water demand of the town is 0.18x$10^6$ m$^3$. If the surface area of the reservoir is 1.1 km$^2$, calculate the water volume that is to be spilled from the dam for February after the water demand of the town is supplied.

3. The water volume in Demirköprü Dam reservoir at the beginning of July 1972 is 404x$10^6$ m$^3$. At the end of the same month the remaining water volume in the reservoir is 359x$10^6$ m$^3$. During this month the water volume spent for energy production is 58 x$10^6$ m$^3$ and surface evaporation is 9x$10^6$ m$^3$. Calculate the mean discharge carried by Gediz River to the dam for this month.