**Properties of a Reservoir**

We shall determine *θ*max, *θv*, and *θF* and plot the volume ratio *V/Vw*, the depth of the water *h*, and the force *F*rod for 0 ≤ *θ* ≤ *θ*max. We assume that *L* = 10 m, α = 5 m, *B* = 10 m, and *W* = 100.000 N. We use fzero to determine *θ*max and fminbnd to determine the values of *θv* and *θF*.