1. Vertical Surface: Given the following fish tank in the form of a rectangular prism:

(a) What is the pressure at the bottom of the tank?
(b) Sketch the pressure distribution on the side wall.
(c) Find the total force on one of the side wall (front view).
(d) Find the total moment on the respective side wall about Point A.
(e) Find the center of pressure.
2. Oblique Surface: If one of the side walls is slightly sloped at $30^{\circ}$, what will the followings be different?

(a) Your analysis?
(b) Your results (take a first guess before you attempt.)
3. Curved Surface: If the slope is replaced by a concave or convex surface, what do you expect the results to be


## Concave surface



Convex surface

