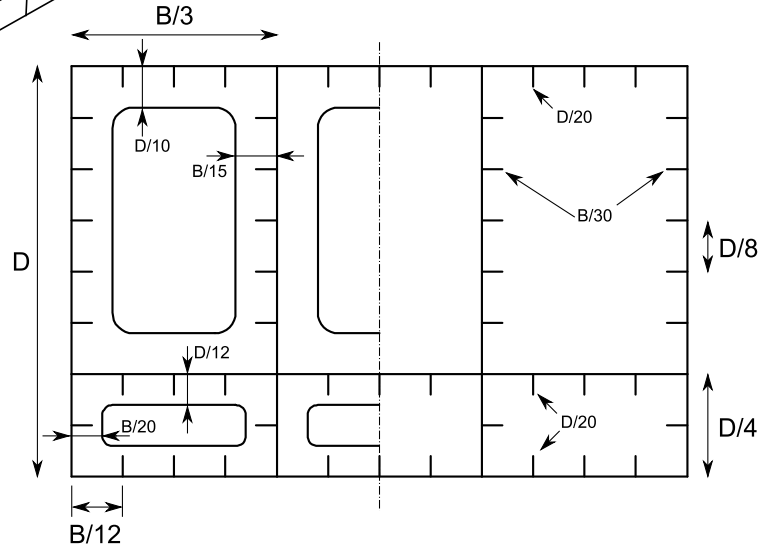


STRENGTH OF SHIPS
TERM PROJECT
 Due Date 11 DEC 2015



- 1) Structure is made of a single material with modulus of elasticity of **200 GPa** and poisson ratio of **0.3**
- 2) Inner bottom is loaded with **P** uniformly
- 3) Vertical stiffener height is **D/20**, horizontal stiffener height is **B/30**
- 4) There is a web frame every **L/4** longitudinally
- 5) Thickness of each stiffener is **t1**, thickness of any other plate part (bulkheads, outer shell etc.) is **t2**
- 6) Structure has **fix support** on both fore and aft ends (apply supports to lines)
- 7) A suitable radius value for fillets of holes should be chosen

Student No.	Name	L [m]	B [m]	D [m]	P [Pa]
30090098	Ahmet Karakaş	12	6	4	10000
80100060	Hüseyin Cem Köylü	12	6	4	20000
80100073	Nebil Can Boztepe	12	6	6	10000
80100077	Yavuz Pervane	12	6	6	20000
80110063	Muhsin Cem Başar	12	8	4	10000
80110065	Gökay Sevgi	12	8	4	20000
80110073	Hazım Başaran	12	8	6	10000
80110077	Hamdi Egemen Sak	12	8	6	20000
80110078	Utku Sarı	16	6	4	10000
80110079	Şerif Yiğit Aşkar	16	6	4	20000
80120301	Sarper Beba	16	6	6	10000
80120317	Ali Burhan Güncan	16	6	6	20000
80120326	Alırza Orun Baştan	16	8	4	10000
80120329	Enes Ertuğrul Altıntaş	16	8	4	20000
508151011	Nima Alizadeh	16	8	6	10000
820120116	Mehmet Çağatay Hazer	16	8	6	20000

Find **t1** and **t2** that makes the maximum stress **200 MPa** and weight of the structure minimum. Answers should be mailed (along with Ansys db files) to korogluser@itu.edu.tr by **11 DEC 2015**.