

**MAK 304 MAKİNE TASARIMI II – ME 304 MACHINE DESIGN II***2016 Bahar Dönemi - 2016 Spring Semester***Ödev 1 – Homework 1**

Given: February 23, 2016

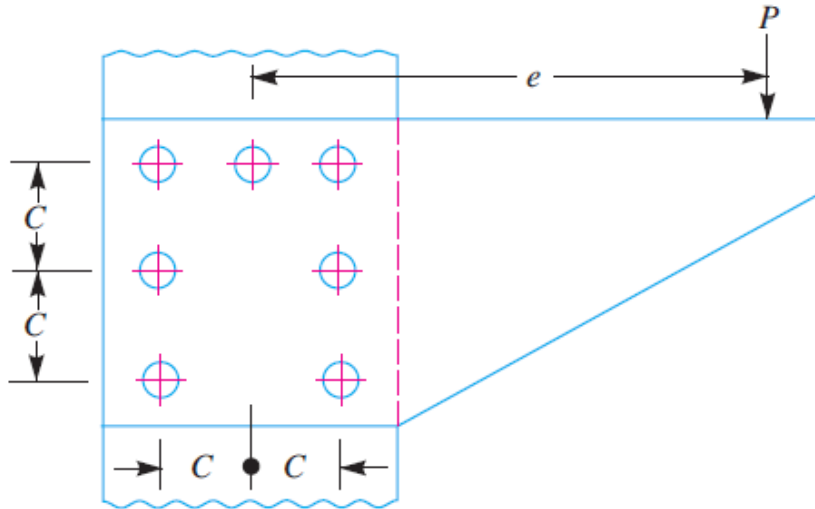
Name \_\_\_\_\_

Due: February 27, 2016

Student Number \_\_\_\_\_

**Soru:** Bütün perçinlerin çapı aynıdır. Brakete'e  $P$  yükü etki etmektedir. Perçinler arası mesafe  $C$ 'dir. Moment kolu  $e$ 'dir. Müsaade edilebilir kayma gerilmesi  $\tau_{all}$  olduğuna göre perçinlerin çapının ne olması gerektiğini bulunuz.

*All rivets are to be of the same size. Load on the bracket is  $P$ , rivet spacing is  $C$ , and the load arm is  $e$ . If the allowable shear stress is  $\tau_{all}$ , determine the diameter of the rivets to be used for the joint*



MAK 304/ ME 304 Student number	$P$ [kN]	$C$ [mm]	$e$ [mm]	$\tau_{all}$ [MPa]
20072778	50	100	400	65
20133193	55	105	405	70
20155062	60	110	410	75
20133653	65	115	415	80
20144555	70	120	420	85
20113313	75	125	425	90
20144009	80	130	430	95
20132983	85	135	435	100
20112173	90	140	440	105
20145454	95	145	445	110
20147407	100	150	450	115
20143541	105	155	455	120
20143540	110	160	460	125
20142912	115	165	465	130
20132867	120	170	470	135
20143258	125	175	475	140
20143188	130	180	480	145
20135787	135	185	485	150
20143152	140	190	490	155
20142889	145	195	495	160
20145788	150	200	500	165
20143352	155	205	505	170
20143766	160	210	510	175
20143542	165	215	515	180
20145748	170	220	520	185
20145817	175	225	525	190