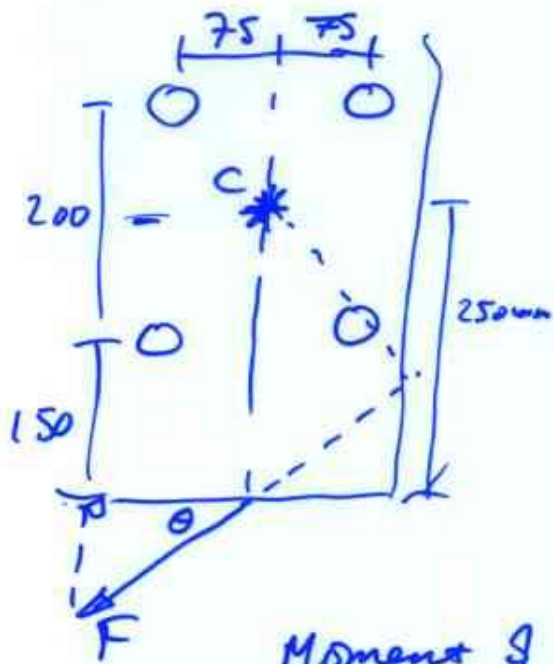Centroid is very easy to find

$$\frac{\sum x_i A_i}{\sum A_i} = \frac{0 + 0 + 150 + 150}{4}$$

$$= 75$$
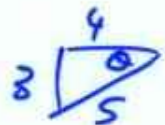
$$\frac{\sum y_i A_i}{A_i} = \frac{(150)(2) + (350)(2)}{4}$$
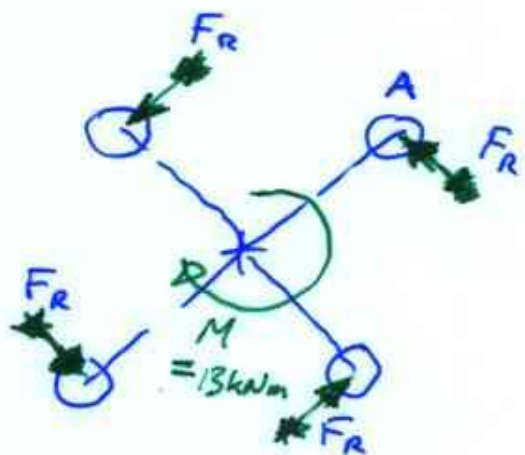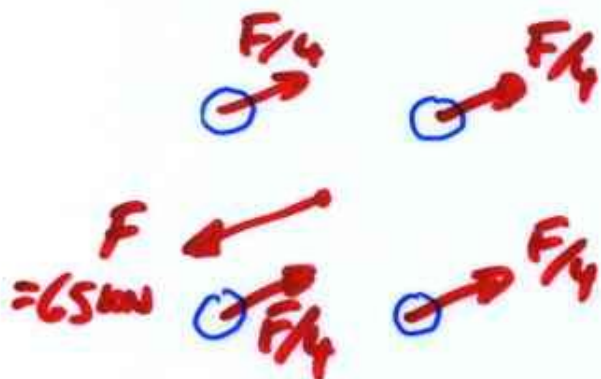
$$= 250$$

Moment of F about c

$$= (F)(\cos \theta)(250)$$

$$= F \frac{4}{5}\left(\frac{250}{1000}\right) = 0.2F = \underline{\underline{13 \, kN\,m}}$$

Forces on each rivet

$$\frac{F}{4} = \frac{65 kN}{4} = \underline{\underline{16.25 kN}}$$

In this case, radius for each rivet rel. to centroid is same.
+ Areas same
$\Rightarrow F_r =$ same for all rivets

$$\sum M_c = 4 F_r \rho = M$$

$$F_R = \frac{M}{4\rho} = \frac{13 \times 10^3}{(4)(125 \times 10^{-3})}$$