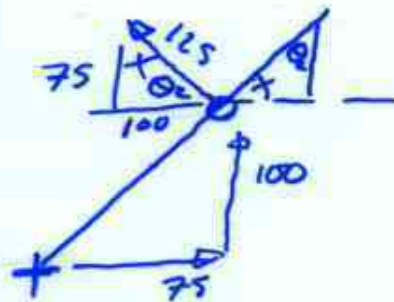
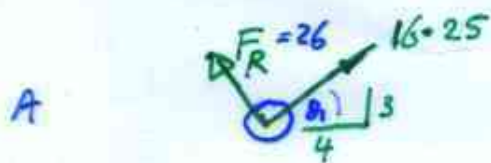


$$F = 16.25 \text{ kN.}$$

$$F_R = 26 \text{ kN}$$

look @ top left rivet 1st



Sum x components

$$16.25 (\cos \theta_1) - 26 (\cos \theta_2)$$

$$(16.25) \left(\frac{4}{5}\right) - 26 \left(\frac{100}{125}\right) = -7.8 \text{ kN}$$

y components:

$$(16.25) \sin \theta_1 + 26 (\sin \theta_2)$$

$$(16.25) \left(\frac{3}{5}\right) + (26) \left(\frac{75}{125}\right) = 25.35 \text{ kN}$$

$$\text{Magn} = \sqrt{x^2 + y^2} = \sqrt{(7.8)^2 + (25.35)^2}$$

$$= 26.52 \text{ kN}$$

$$\theta = \tan^{-1} \left( \frac{25.35}{7.8} \right) = 72^\circ$$

$$\text{to get } \sigma = \frac{F}{A} = \frac{26.52 \times 10^3}{490.9 \times 10^{-6}} = 54 \text{ MPa}$$

$\phi = 25 \text{ mm}$

250 on for other rivets