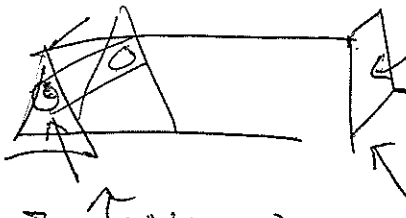
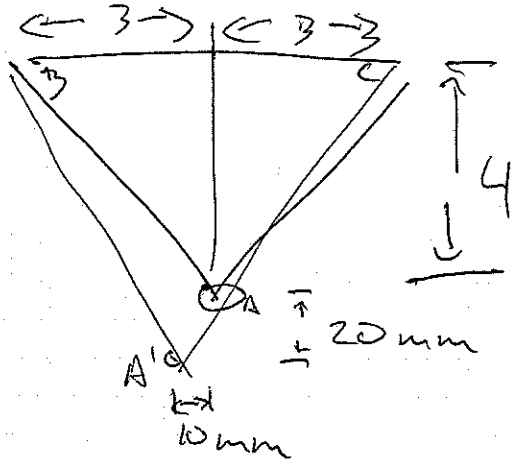
1.95



$\frac{V}{A} = \tau_{ALLOW}$ $\sigma_{ALLOW} = P/A$

$\frac{P^V}{A} = \tau^V_{ALLOW}$ $\frac{P}{2\left(\pi \frac{d^2}{4}\right)} = \tau_{ALLOW}$

2.1



AB = 5 m

AC = 5 m

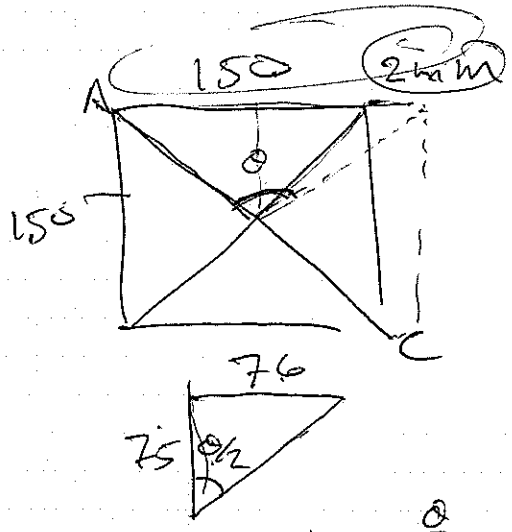
$A'B = \sqrt{4.02^2 + 2.99^2} = 5.010$

$A'C = \sqrt{4.02^2 + 3.01^2} = 5.022$

$\epsilon_{AB} = \frac{5.010 - 5}{5} = .002$

$\epsilon_{BC} = \frac{5.022 - 5}{5} = .0044$

2.3



$AC = \sqrt{2(150)^2} = 212.130$ mm

$AC' = \sqrt{150^2 + 152^2} = 213.55$ mm

$\frac{AC' - AC}{AC} = \epsilon_{AC} = .00669$

$\tan\frac{\theta}{2} = 76/75$