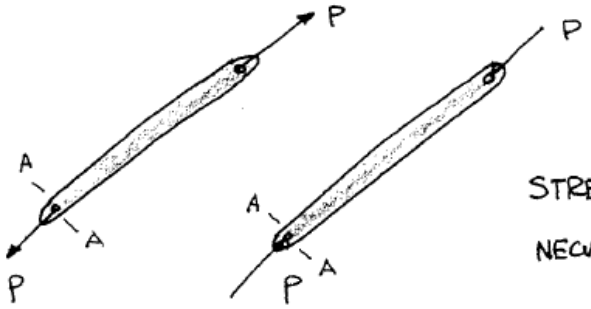
NOTES: **Stress in a link**

TENSION & COMPRESSION IN A LINK W/ PINS

http://www.wikipedia.org

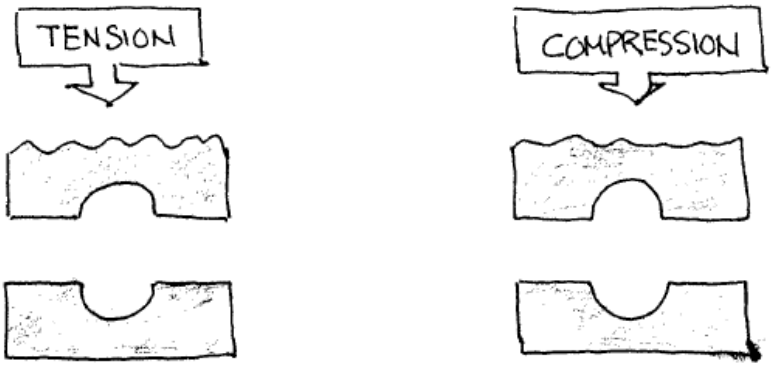


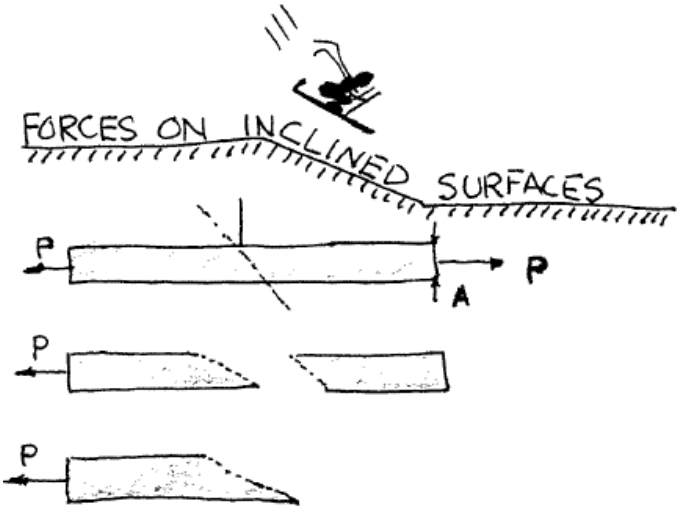
STRESS @ A-A IN TENSION _____

NEGATIVE of STRESS @ A-A IN COMPRESSION

IN _____ IN _____

DRAW THE FREE BODY DIAGRAMS:





USE EQUILIBRIUM TO FIND N & V.

(HINT: TILT YOUR AXES)

NOTES: Stress in a link

$\Sigma F_{x'} = 0$ $\Sigma F_{y'} = 0$

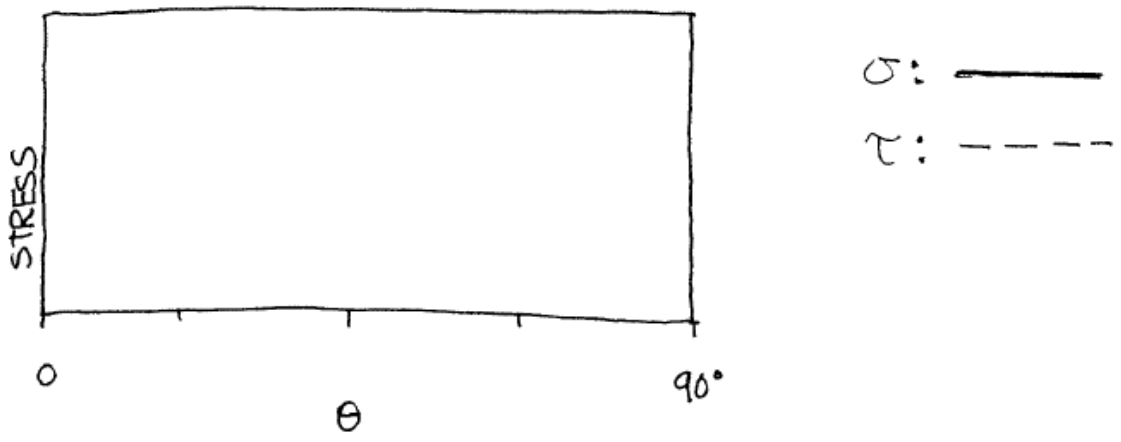
$N =$ $V =$

NOW CALCULATE NORMAL & SHEAR STRESSES: (HINT: THINK ABOUT WHAT AREA TO USE.)

$\sigma = \frac{N}{\quad} =$

$\tau = \frac{V}{\quad} =$

PLOT NORMAL & SHEAR STRESS AS FUNCTIONS of θ:

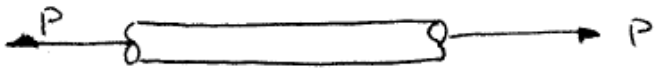


WHERE IS $\tau = \tau_{MAX}$?

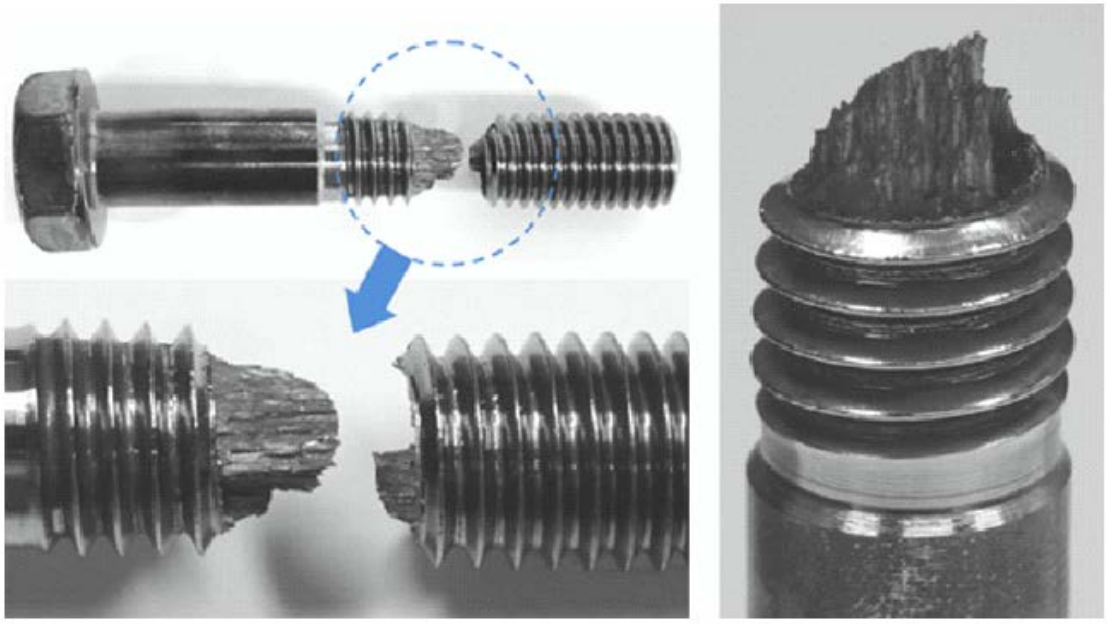
NOTES:

1. FOR AN _____ LOAD, WE CAN STILL HAVE _____ _____.

2. FAILURE MODE FOR A SPECIMEN IN TENSION IS OFTEN DESCRIBED AS _____.
   FAILURE PLANE IS _____° FROM LINE of ACTION of FORCE.



"_____ & _____" FAILURE.



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