

(1.1.13)

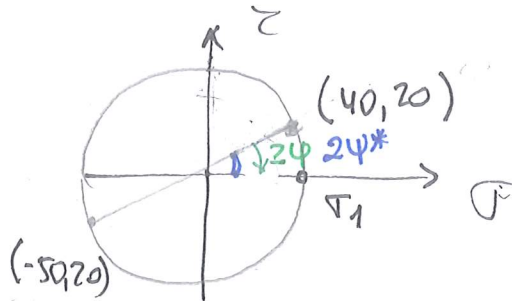
$$\sigma_x = 40$$

$$\sigma_y = -50$$

$$\tau_{xy} = 20$$

$$\sigma_x > \sigma_y$$

$$\tau_{xy} > 0$$



$$0^\circ < 2\psi < 90^\circ$$

$$2\psi^* = \arctan\left(\frac{2\tau_{xy}}{\sigma_x - \sigma_y}\right)$$

$$2\psi = 2\psi^*$$

Obs!

$2\psi^* \Rightarrow \text{miniräkare}$
 $\text{skär} \Rightarrow 2\psi$

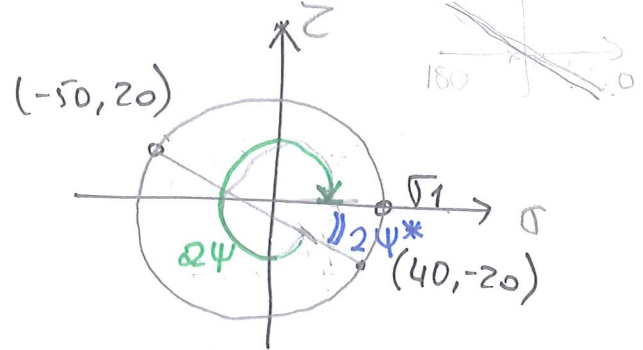
$$\sigma_x = 40$$

$$\sigma_y = -50$$

$$\tau_{xy} = -20$$

$$\sigma_x > \sigma_y$$

$$\tau_{xy} < 0$$



$$270^\circ < 2\psi < 360^\circ$$

$$2\psi^* = \arctan\left(\frac{2\tau_{xy}}{\sigma_x - \sigma_y}\right)$$

$$2\psi = 360^\circ + 2\psi^*$$

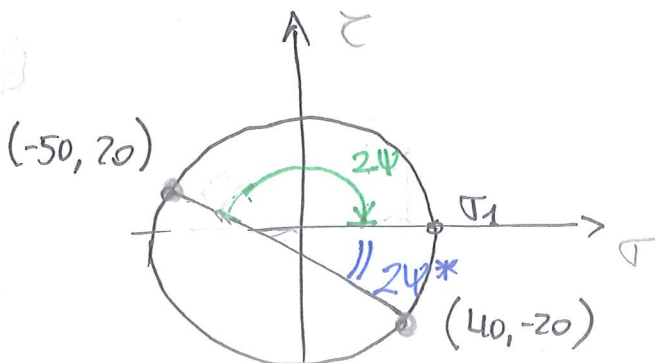
$$\sigma_x = -50$$

$$\sigma_y = 40$$

$$\tau_{xy} = 20$$

$$\sigma_x < \sigma_y$$

$$\tau_{xy} > 0$$



$$90^\circ < 2\psi < 180^\circ$$

$$2\psi^* = \arctan\left(\frac{2\tau_{xy}}{\sigma_x - \sigma_y}\right) < 0$$

$$2\psi = 180^\circ + 2\psi^*$$

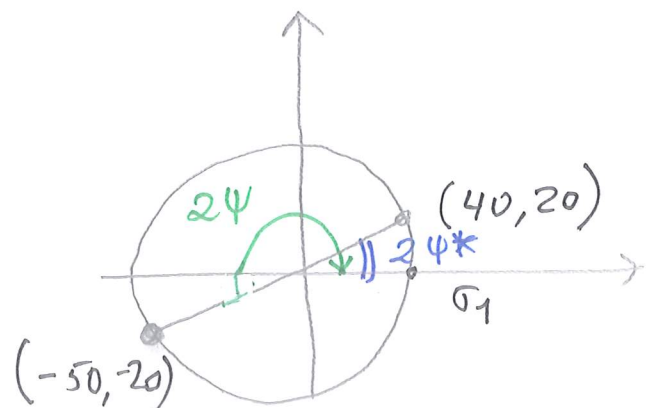
$$\sigma_x = -50$$

$$\sigma_y = 40$$

$$\tau_{xy} = -20$$

$$\sigma_x < \sigma_y$$

$$\tau_{xy} < 0$$



$$180^\circ < 2\psi < 270^\circ$$

$$2\psi^* = \arctan\left(\frac{2\tau_{xy}}{\sigma_x - \sigma_y}\right)$$

$$2\psi = 180^\circ + 2\psi^*$$