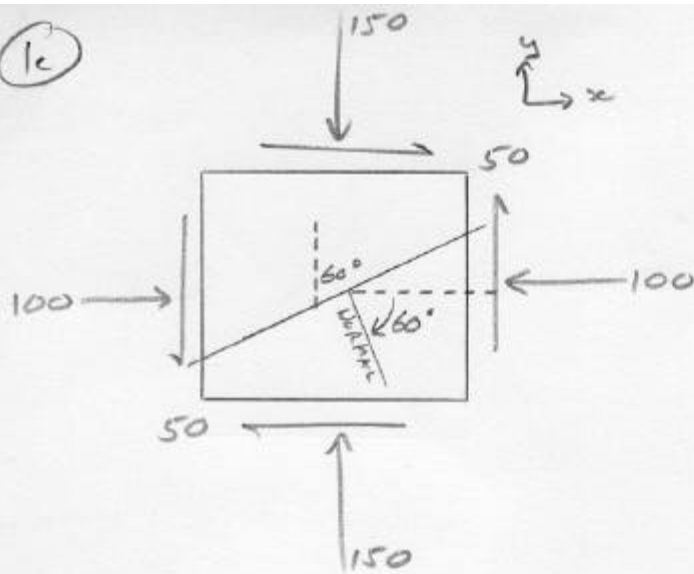


Q1c



$$\sigma_x = -100 \text{ MPa}$$

$$\sigma_y = -150 \text{ MPa}$$

$$\tau_{xy} = 50 \text{ MPa}$$

PLOT THE POINTS $X(-100, -50)$ AND $Y(-150, 50)$ AND DRAW MOHR'S CIRCLE (CENTRE, A) - SEE CHART Q1c

THE PLANE NORMAL TO THE PLANE OF INTEREST LIES AT 60° CLOCKWISE TO THE X-FACE. THUS, ROTATE THROUGH $2 \times 60^\circ$ CLOCKWISE ABOUT A FROM AX TO POINT P $(-180, 4)$

THUS, $\sigma_\theta = -180 \text{ MPa}$, $\tau_\theta = 4 \text{ MPa}$ CLOCKWISE
(SINCE P IS ABOVE THE ABSCISSA)