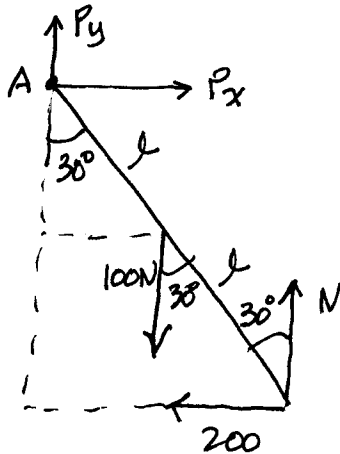
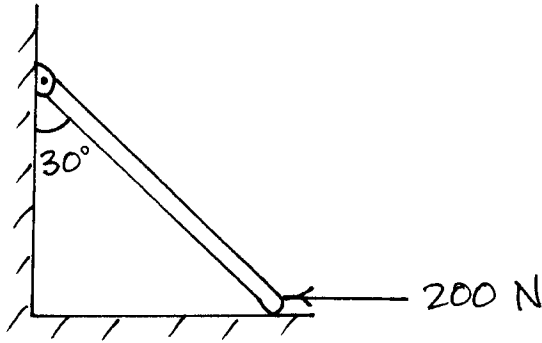


5.



$$\sum F_x = 0 \Rightarrow \boxed{P_x = 200 \text{ N}}$$

$$\sum F_y = 0 \Rightarrow P_y - 100 + N = 0 \quad (1)$$

$$\sum \tau_A = 0 \Rightarrow (2l \sin 30^\circ)N - (l \sin 30^\circ)100 - (2l \cos 30^\circ)200 = 0$$

$$N = \frac{100 \sin 30^\circ + 400 \cos 30^\circ}{2 \sin 30^\circ}$$

$$\boxed{N = 396.4 \text{ N}} \quad (2)$$

Combining (1) & (2): $P_y - 100 + 396.4 = 0$

$$\boxed{P_y = -296.4 \text{ N}}$$

The minus sign means that P_y is downward (opposite to the direction assumed).

Note: Test these results by taking torques about the bottom point, using the above values