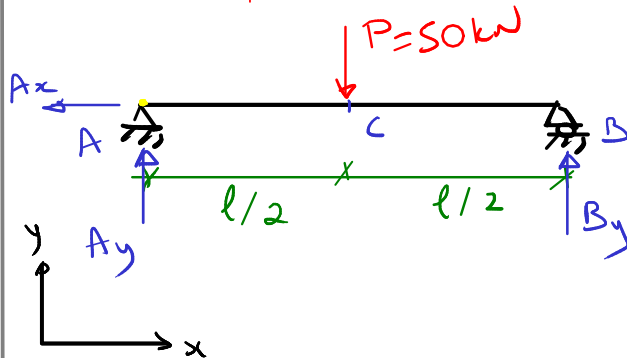


ΕΞΙΣΩΣΕΙΣ ΙΣΟΡΡΟΠΙΑΣ

$$\Sigma F_x = 0 \quad , \quad \Sigma F_y = 0 \quad , \quad \Sigma M_* = 0$$

Πx 1 | Αμφιύρση με συγκεντρωμένη δύναμη σε τέντα



$$l = 6m$$

$$\Sigma F_x = 0 \Rightarrow A_x = 0$$

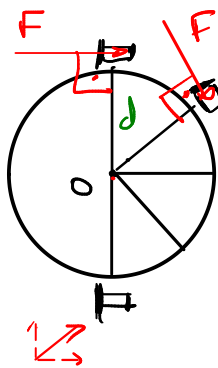
$$\Sigma F_y = 0 \Rightarrow A_y + B_y - P = 0 \Rightarrow$$

$$A_y + B_y = P$$

$$\Sigma M_A = 0 \Rightarrow B_y \cdot l - P \cdot \frac{l}{2} = 0 \Rightarrow B_y = P/2 \text{ οπότε } \eta$$

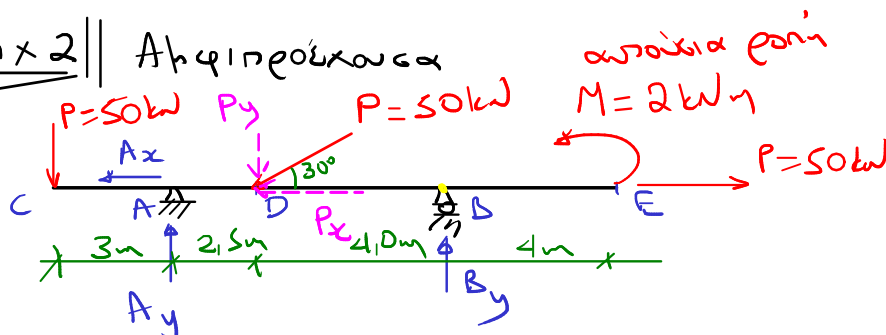
$$A_y + B_y = P \Rightarrow A_y = P - B_y = P - P/2 \Rightarrow A_y = P/2$$

ΝΟΤΕ: Ποπή γύρω από έναν άξονα περιστροφής



$$M_o = F \cdot d = \text{Δύναμη} \times \text{Μοχλοβραχίονας}$$

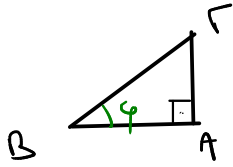
Πx 2 | Αμφιπερόκασα



$$P_x = P \cos 30^\circ$$

$$P_y = P \sin 30^\circ$$

NOTE: γωνία ύψους



$$\sin \gamma = \frac{\text{απέναντι}}{\text{υποτέτωσα}} = \frac{A\Gamma}{B\Gamma}$$

$$\cos \gamma = \frac{\text{πρόσκλιση}}{\text{υποτέτωσα}} = \frac{BA}{B\Gamma}$$

$$\tan \gamma = \frac{\sin \gamma}{\cos \gamma} = \frac{\text{απέναντι}}{\text{πρόσκλιση}} = \frac{A\Gamma}{BA}$$

$$\overset{+}{\sum} F_x = 0 \Rightarrow P - P_x - A_x = 0 \Rightarrow A_x = P - P_x$$

$$\overset{+}{\sum} F_y = A_y + B_y - P_y - P = 0 \Rightarrow A_y + B_y = P + P_y$$

$$\overset{+}{\sum} M_B = 0 \Rightarrow -P \cdot 9,5m + A_y \cdot 6,5m - P_y \cdot 4m - M = 0 \Rightarrow$$

$$6,5 A_y = M + 4P_y + 9,5P \Rightarrow A_y = \frac{M + 4P_y + 9,5P}{6,5}$$

$$\text{Αρα } A_y + B_y = P + P_y \Rightarrow$$

$$B_y = P + P_y - A_y$$