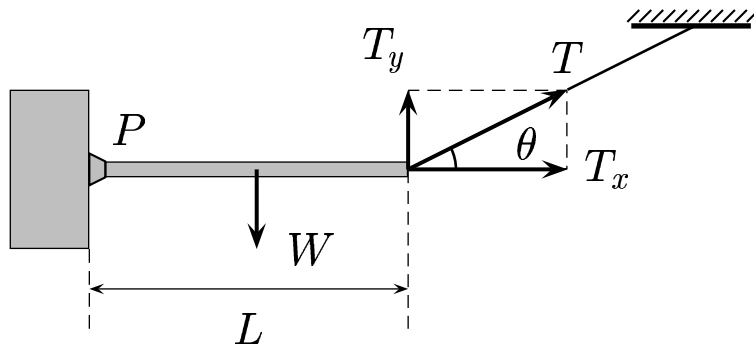For the set up shown, quantities L, W and θ are given.

Find T.

A) $T = \dfrac{W}{2 \sin \theta}$.

B) $T = \dfrac{W}{2 \cos \theta}$.

C) $T = \dfrac{W}{2}$.

The torque equation about P is given by

$$\sum \tau : \quad T_y\, L = T \sin \theta \, L = W \, \frac{L}{2}.$$

or

$$T = \frac{W}{2 \sin \theta}.$$

Answer **A**.

12.03-02˙A˙Rod˙Supported˙Horizontally 2004-4-6