

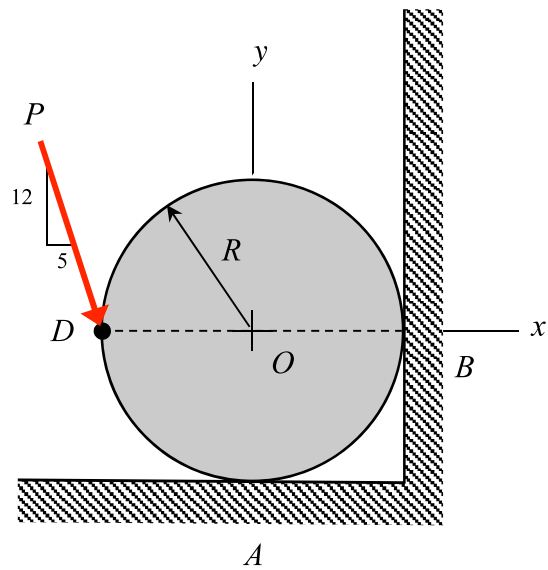
### Homework H6.A

**Given:** A force  $P$  acts on the perimeter of a circular disk.

**Find:** For this problem:

- Determine the moment of  $P$  about point A.
- Determine the moment of  $P$  about point B.
- Determine the moment of  $P$  about point O.

Express your answers as vectors in terms of  $P$  and  $R$ .



### Homework H6.B

**Given:** Cables BC and AD carry tensions of  $T$ , and  $2T$ , respectively.

**Find:** For this problem:

- Determine the moment about point O due to the force of cable CB on the boom.
- Determine the moment about point O due to the force of cable DA on the boom.

Use  $\theta = 70^\circ$  and  $\phi = 30^\circ$ . Express your answers as vectors in terms of  $T$  and  $d$ .

