

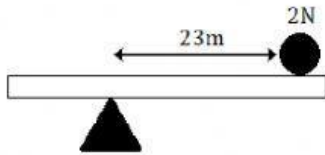
NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

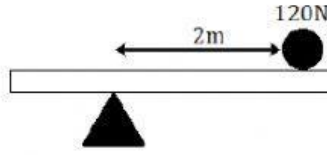
## MOMENTS

Recall that **MOMENT = FORCE X DISTANCE (from pivot)**. Answers should be to 1 decimal place where applicable.

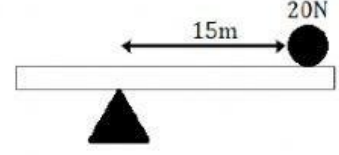
1. Calculate the moments of the following systems.



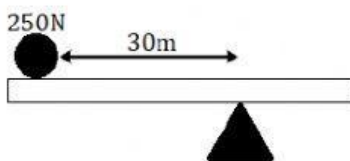
$$\begin{aligned}\text{Moment} &= \text{_____} \times \text{_____} \\ &= \text{_____} \text{ N} \times \text{_____} \text{ m} \\ &= \text{_____} \text{ Nm}\end{aligned}$$



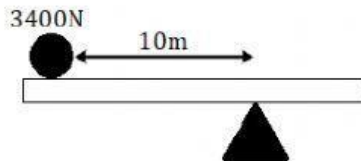
$$\begin{aligned}\text{Moment} &= \text{_____} \times \text{_____} \\ &= \text{_____} \text{ N} \times \text{_____} \text{ m} \\ &= \text{_____} \text{ Nm}\end{aligned}$$



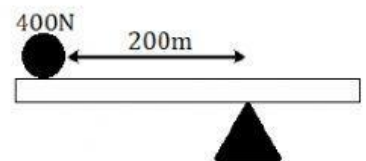
$$\begin{aligned}\text{Moment} &= \text{_____} \times \text{_____} \\ &= \text{_____} \text{ N} \times \text{_____} \text{ m} \\ &= \text{_____} \text{ Nm}\end{aligned}$$



$$\begin{aligned}\text{Moment} &= \text{_____} \times \text{_____} \\ &= \text{_____} \text{ N} \times \text{_____} \text{ m} \\ &= \text{_____} \text{ Nm}\end{aligned}$$

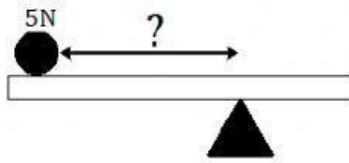


$$\begin{aligned}\text{Moment} &= \text{_____} \times \text{_____} \\ &= \text{_____} \text{ N} \times \text{_____} \text{ m} \\ &= \text{_____} \text{ Nm}\end{aligned}$$

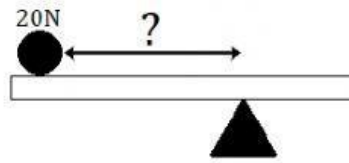


$$\begin{aligned}\text{Moment} &= \text{_____} \times \text{_____} \\ &= \text{_____} \text{ N} \times \text{_____} \text{ m} \\ &= \text{_____} \text{ Nm}\end{aligned}$$

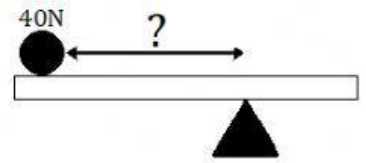
2. Find the missing DISTANCES if all of the systems below have a **Moment of 200Nm**.



$$\begin{aligned} \text{Distance} &= \frac{\quad}{\quad} \\ &= \frac{\quad \text{Nm}}{\quad \text{N}} \\ &= \quad \text{m} \end{aligned}$$

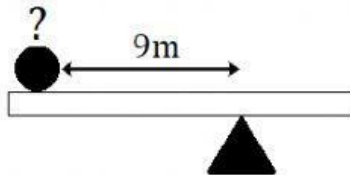


$$\begin{aligned} \text{Distance} &= \frac{\quad}{\quad} \\ &= \frac{\quad \text{Nm}}{\quad \text{N}} \\ &= \quad \text{m} \end{aligned}$$

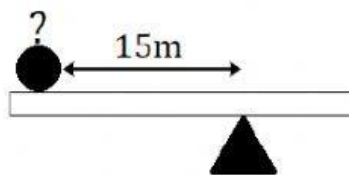


$$\begin{aligned} \text{Distance} &= \frac{\quad}{\quad} \\ &= \frac{\quad \text{Nm}}{\quad \text{N}} \\ &= \quad \text{m} \end{aligned}$$

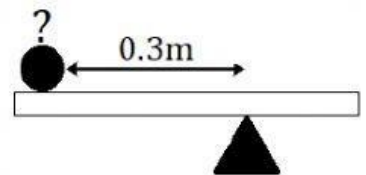
3. Find the missing FORCES if all of the systems below have a **Moment of 450Nm**.



$$\begin{aligned} \text{Force} &= \frac{\quad}{\quad} \\ &= \frac{\quad \text{Nm}}{\quad \text{m}} \\ &= \quad \text{N} \end{aligned}$$



$$\begin{aligned} \text{Force} &= \frac{\quad}{\quad} \\ &= \frac{\quad \text{Nm}}{\quad \text{m}} \\ &= \quad \text{N} \end{aligned}$$



$$\begin{aligned} \text{Force} &= \frac{\quad}{\quad} \\ &= \frac{\quad \text{Nm}}{\quad \text{m}} \\ &= \quad \text{N} \end{aligned}$$