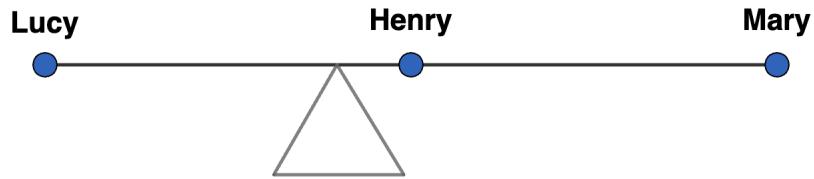


2009 F=ma Exam: Problem 13

Kevin S. Huang

If the fulcrum was at Henry, we wouldn't have static equilibrium since Lucy is heavier than Mary and they both have the same moment arm. Thus, the fulcrum should be between Henry and Lucy.



Balancing torques,

$$\tau_{\text{Lucy}} = \tau_{\text{Henry}} + \tau_{\text{Mary}}$$

Thus, Lucy exerts the most torque so the answer is B.