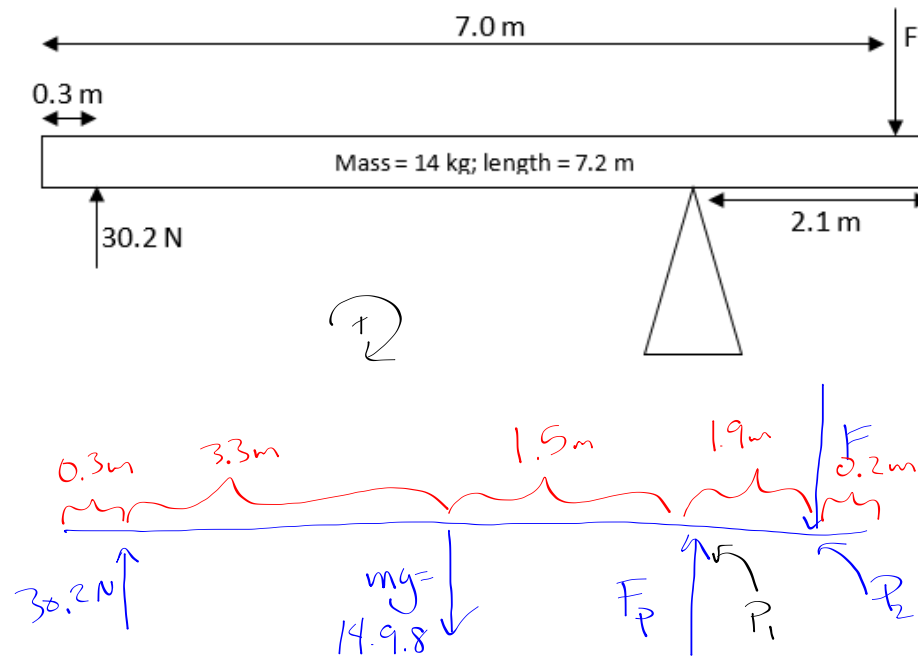


In the diagram below, find  $F$  and the upward force from the pivot point. Assume all objects are in rotational static equilibrium.



$$\sum \tau_{P1} = 0$$

$$(30.2)(4.8) + -(14 \cdot 9.8)(1.5) + (F_p)(0) + (F)(1.9) = 0$$

$$\sum \tau_{P2} = 0$$

$$(30.2)(6.7) + -(14 \cdot 9.8)(3.4) + F_p(1.9) + F(0) = 0$$