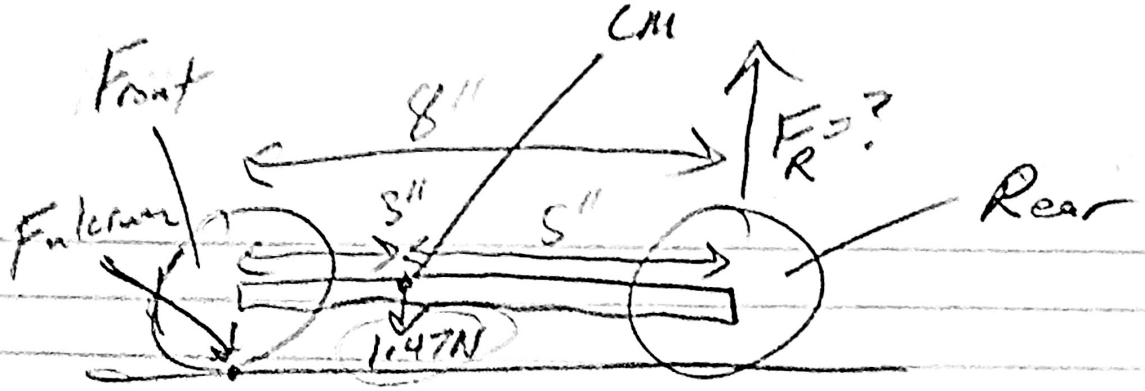
#2

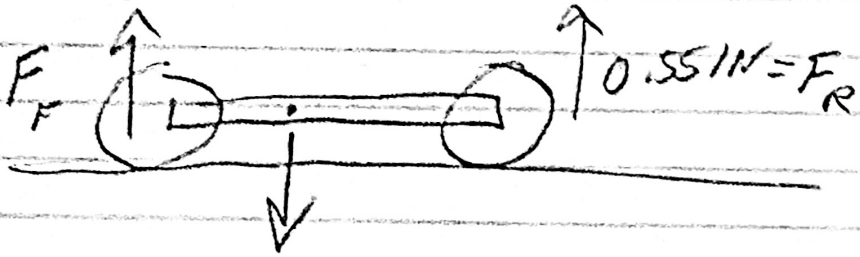


$W = mg = 0.15kg(9.8 m/s^2) = 1.47N$

Let the fulcrum be the contact point of the front wheel $\Rightarrow \tau_{ccw} = \tau_{cw}$

$F_R(8") = 3"(1.47N)$

$F_R = 0.551N$



Newton's 2nd Law $\Rightarrow \sum F = ma = 0$

$\sum F = F_F + F_R - 1.47N$

$F_F + 0.551N - 1.47N = 0$

$F_F = 0.919N$