## Forces / Set 2 / Animation 1

Name $\qquad$ Class $\qquad$
<Show all work on calculations. Include proper units. Explanations require complete sentences.>

1) Find the mass (m) of the smaller box.
2) Draw and label free body diagrams for both (m) and (M).
3) Calculate the acceleration of the system.
4) Change the ratio of the masses: $\mathrm{M} / \mathrm{m}=10$. Calculate the new acceleration of the system.
5) With $\mathrm{M} / \mathrm{m}=10$, calculate the final velocity of the larger mass (M).
