$\Delta m = A \Delta y f_y$

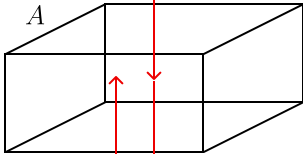F_2

A

$y + \Delta y \implies P_{y+\Delta y}$

$y \implies P_y$

f_y

F_1

mg