



A BUNGEE JUMPER JUMPS OFF A CLIFF OF HEIGHT  $H$  AND JUST REACHES THE BOTTOM OF THE CLIFF WITH A ZERO VELOCITY. JUST BEFORE HER CABLE SNAPS HER BACK UPWARD, WHILE SHE IS MOTIONLESS, SHE GRABS A ROCK OF MASS  $m_1$ .

YOU OBSERVE THAT THE JUMPER ACHIEVES THE HEIGHT  $h$  ON THE WAY BACK UP. WHAT IS  $m_1$ ?  
 IN EVALUATE CONSIDER THE CASES  $h = H$ , AND  $h = 0$ .