

50. (a) The (internal) energy the climber must convert to gravitational potential energy is

$$\Delta U = mgh = (90)(9.8)(8850) = 7.8 \times 10^6 \text{ J} .$$

- (b) The number of candy bars this corresponds to is

$$N = \frac{7.8 \times 10^6 \text{ J}}{1.25 \times 10^6 \text{ J/bar}} \approx 6 \text{ bars} .$$