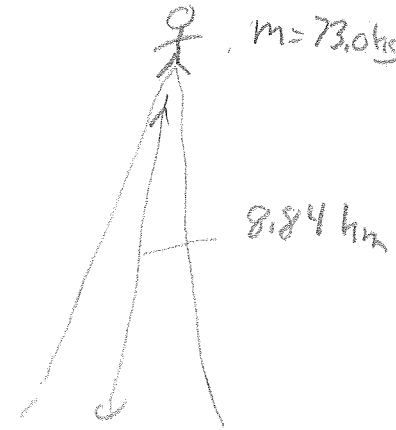
18-26 Butter has 6.0 Cal/g (= 6000 cal/g)

How much butter gets you up Mt. Everest?



You need to gain $U = mgh$ gravitational potential energy.

so $U = 73.0\,kg \cdot 9.8\,m/s^2 \cdot 8.84 \times 10^3\,m$

$$= 6.32 \times 10^6\,J \cdot \frac{1.00\,cal}{4.186\,J} = 1.51 \times 10^6\,cal$$

at 6000 cal/g, that's $\frac{1.51 \times 10^6\,cal}{6000\,cal/g} = 252\,g$