**Answer on question #56529, Physics / Other**

**Question**  a 50 kg girl eats a banana (500 kj). she wants to work off the energy by climbing a hill. the human body is 10 percent efficient. how high must she climb

**Solution**  Potential energy is

$$E = mgh$$

Taking into account coefficient k=0.1 (10%) she has to climb

$$h = \frac{kE}{mg} = \frac{500 \cdot 10^3 \cdot 0.1}{50 \cdot 9.8} \approx 100\,m$$