CALORIE → ENERGY ← JOULES

→ HEAT ←

→ WORK ←

cal → Cal

Cal → kcal → 1000 cal

2510 kcal → $2.51 \times 10^3 \times 10^3$ cal

→ $\boxed{2.51 \times 10^6 \text{ cal}}$

$\frac{.239006 \text{ cal}}{\text{J}}$

$(2.51 \times 10^6 \text{ cal})(.239006 \frac{\text{cal}}{\text{J}})$

$\frac{2.51 \times 10^6 \text{ cal}}{.239006 \text{ cal}/\text{J}}$ → 1.05×10^7 J

$\boxed{1.05e+07}$ J

KW HR → ENERGY

$(1000)\left(\frac{\text{J}}{\text{s}}\right)3600\text{s}$ → $\boxed{\frac{3.6 \times 10^6 \text{ J}}{(\text{KW HR})}}$

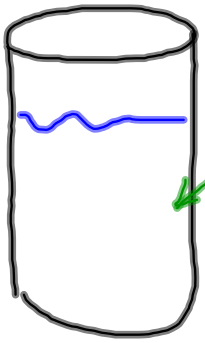
$\frac{1.05 \times 10^7 \text{ J}}{[\ \ ]}$ = 2.92 KWHR $\left(\frac{0.10}{\text{KWHR}}\right)$

= 29.2¢

Feb 11-11:34 AM

$Q = mC\Delta T$

$\frac{4184\,J}{°C\,kg}$



$m = 20.7\,kg$

$T_i = 15°C$

$T_f = 99°C$

$\Delta T = 84\,°C$

$7.28 \times 10^6\,J$