

22

U: ΔT

G: $m = 30 \text{ g Fe}$
 $Q = 165 \text{ cal}$
 $C = .11$

F: $Q = mc \Delta T$
 $165 = (30)(.11) \Delta T$
 $\frac{165}{3.3} = \frac{3.3 \Delta T}{3.3}$
 $50^\circ\text{C} = \Delta T$

$\Delta T = \frac{Q}{mc}$

Dec 20-7:47 AM

23

U: $m \text{ of } \text{H}_2\text{O}$

G: $Q = 240$
 $80^\circ \text{ } \Delta T = 12^\circ$
 68°
 $C = 1$

F: $Q = mc \Delta T$
 $240 = m(1)(12)$
 $\frac{240}{12} = \frac{12m}{12}$
 $20 = m$

$m = \frac{Q}{(C)(\Delta T)}$
 $= \frac{240}{1(12)}$

Dec 20-7:58 AM

24

U: $C \text{ Al}$

G: $m = 50 \text{ g}$
 $Q = 735 \text{ cal}$
 $\Delta T = 70^\circ\text{C}$

F: $Q = mc \Delta T$
 $735 = (50)(c)(70)$
 $\frac{735}{3500} = \frac{3500c}{3500}$

$c = \frac{Q}{m \Delta T}$
 $\rightarrow .21$

Dec 20-8:03 AM

