Possibly useful relations:

$T(K) = T(^\circ C) + 273.15$	$T(^\circ F) = \frac{9}{5}T(^\circ C) + 32^\circ$	$\Delta L = \alpha L \Delta T$
$\Delta V = \beta V \Delta T$	$PV = nRT$	$PV = NkT$
$n = N/N_A$	$v_{\text{rms}} = \sqrt{\frac{3kT}{m}}$	$\overline{\text{KE}} = \frac{1}{2}m\overline{v^2} = \frac{3}{2}kT$
$Q = mc\Delta T$	$Q = mL_V$	$Q = mL_f$
$Q = mL_s$	$\frac{Q}{t} = \frac{\kappa A(T_2 - T_1)}{d}$	$\frac{Q}{t} = \sigma \epsilon A(T_{\text{hot}}^4 - T_{\text{cold}}^4)$
$W = P\Delta V$	monoatomic: $\Delta U = \frac{3}{2}nR\Delta T$	$\Delta U = Q - W$
Isochoric: $\Delta V = 0$	Isothermal: $\Delta T = 0$	Isobaric: $\Delta P = 0$
Adiabatic: $\Delta Q = 0$	$\epsilon = \frac{W}{Q_H} = 1 - \frac{Q_C}{Q_H}$	$\epsilon_{\text{Carnot}} = 1 - \frac{T_C}{T_H}$
$\text{COP}_{\text{ref}} = \frac{Q_C}{W}$	$\text{COP}_{\text{hp}} = \frac{Q_H}{W}$	
$S = (\frac{Q}{T})_{\text{reversible}}$	$\Delta S_{\text{closed}} \geq 0$	$S = k \ln W$
W = (# microstates)/macrostate		

$R = 8.314$ J/(mol $\cdot$ K)	$N_A = 6.02 \times 10^{23}$ mol^{-1}	$k = 1.38 \times 10^{-23}$ J/K
$\sigma = 5.69 \times 10^{-8}$ J/(s $\cdot$ m^2 $\cdot$ K^4)		
1 cal = 4.186 J	1 kcal = 10^3 cal	1 Liter = 10^{-3} m^3
1 atm = 10^5 Pa		