59. Now

$$dQ = nC_p dT = n(C_V + R)dT = \left(\frac{3}{2}nR + nR\right) dT = \frac{5}{2}nR\, dT \ ,$$

so we need to replace the factor 3/2 in the last problem by 5/2. The rest is the same. Thus the answer now is

$$\Delta S = \frac{5}{2}nR \ln\left(\frac{T_f}{T_i}\right) = \frac{5}{2}(1.00\,\text{mol})\left(8.31\,\frac{\text{J}}{\text{mol}\cdot\text{K}}\right)\ln\left(\frac{400\,\text{K}}{300\,\text{K}}\right) = 5.98\ \text{J/K}\ .$$