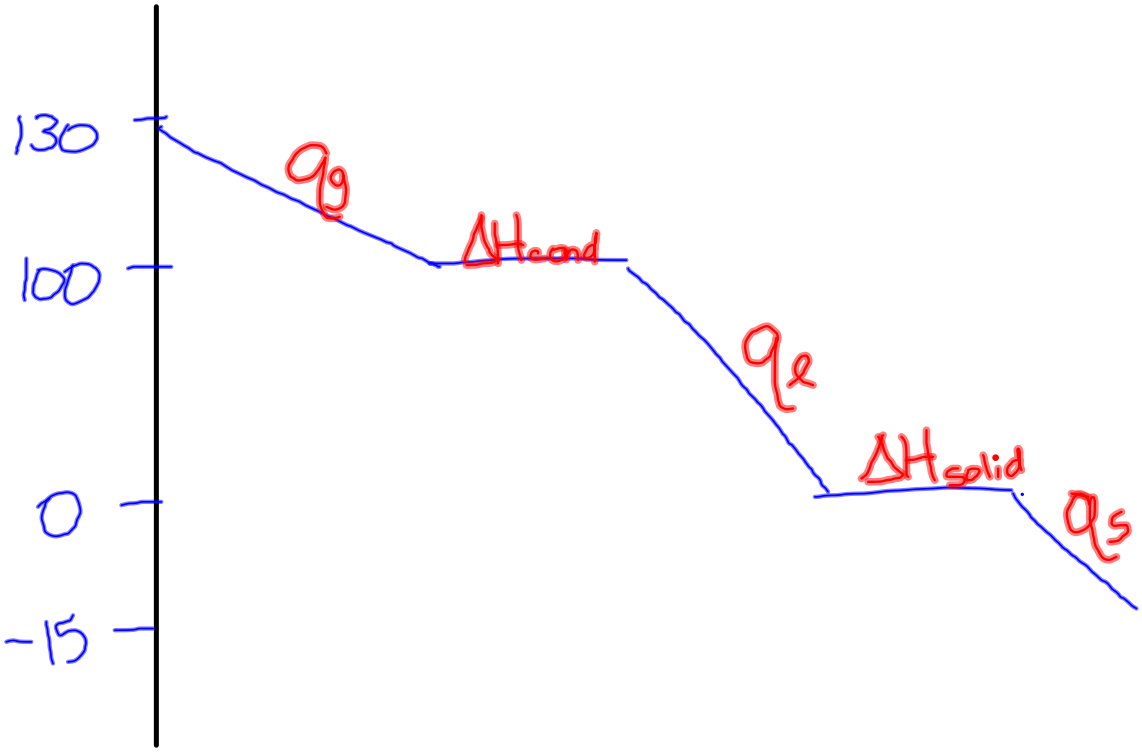
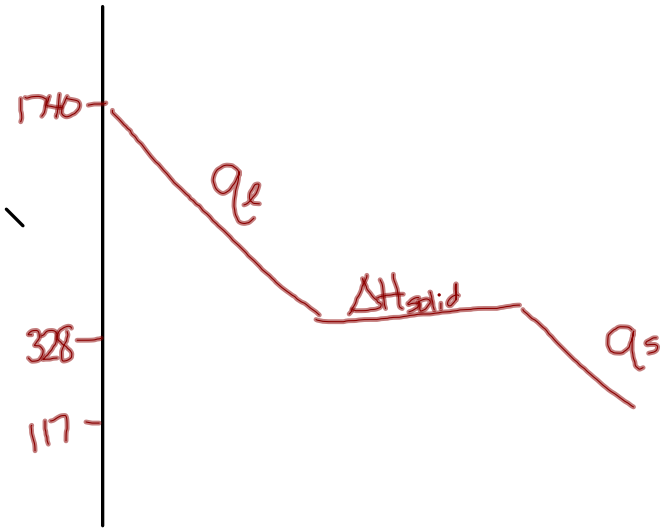
Check Homework - Worksheet





$$\Delta E_T = q_l + \Delta H_{solid} + q_s$$

$$q_l = mC\Delta T$$

$$q_l = (150.0\,g)\left(0.159\,\frac{J}{g\cdot°C}\right)(-1412°C)$$

$$q_l = -33676.2\,J$$

$$q_s = mC\Delta T$$

$$q_s = (150.0\,g)\left(0.159\,\frac{J}{g\cdot°C}\right)(-211°C)$$

$$q_s = -5032.35\,J$$

$$\Delta H_{solid} = n\Delta H_{solid}$$

$$\Delta H_{solid} = \left(\frac{150.0\,g}{207.2\,g/mol}\right)\left(-4.77\,\frac{kJ}{mol}\right)$$

$$\Delta H_{solid} = -3.453\,kJ$$

$$\Delta E_T = (-33.6762\,kJ) + (-3.453\,kJ) + (-5.03235\,kJ)$$

$$\boxed{\Delta E_T = -42.2\,kJ}$$

Total Energy Problems
Worksheet 55