Lesson 6 Quiz: **Hess's Law**

Using the two thermochemical equations given below, apply Hess's law to find the enthalpy change for the reaction between iron(III) oxide and aluminum. Clearly present your method.

$Fe_2O_3(s) + 2\ Al(s) \rightarrow 2\ Fe(s) + Al_2O_3(s)$ $\quad \Delta H = ?$

① $4\ Al(s) + 3\ O_2(g) \rightarrow 2\ Al_2O_3(s)$ $\quad \Delta H = -3352$ kJ

② $4\ Fe(s) + 3\ O_2(g) \rightarrow 2\ Fe_2O_3(s)$ $\quad \Delta H = -1648$ kJ