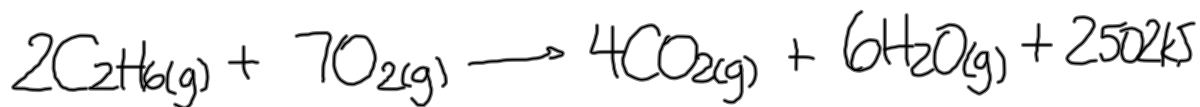


## Homework - Worksheet



Step 1:  $H_r$ (general)

$$\Delta H_r = n H_r$$

$$H_r = \frac{\Delta H_r}{n} = \frac{-2502\text{kJ}}{4\text{mol}} = \underline{\underline{-625.5\text{kJ/mol}}}$$



Step 2:  $n$ (specific)

$$\Delta H_r = n H_r$$

$$-1500\text{kJ} = n \left( -625.5 \frac{\text{kJ}}{\text{mol}} \right)$$

$$n = \frac{-1500\text{kJ}}{-625.5\text{kJ/mol}}$$

$$n = 2.398\text{mol}$$

Step 3:  $m$ (specific)

$$2.398\text{mol CO}_2 \times \frac{44.01\text{g CO}_2}{1\text{mol CO}_2} = \boxed{105.5\text{g}}$$

# **Multi-Step Energy Calculations Worksheet**