

Textbook p208

- 5.
- a) 4
 - b) 3
 - c) 4
 - d) $150 \text{ kJ} - 80 \text{ kJ} = 70 \text{ kJ}$
 - e) 120 kJ
 - f) $\Delta H = 80 \text{ kJ} - 50 \text{ kJ} = 30 \text{ kJ}$
 - g) $\Delta H = 40 \text{ kJ} - 20 \text{ kJ} = 20 \text{ kJ}$
 - h) endothermic
 - i) $\Delta H = 40 \text{ kJ} - 50 \text{ kJ} = -10 \text{ kJ}$
 - j) exothermic

Additional questions: The uncertainty of a measurement can be often obtained by dividing the smallest division on the scale by 2.

- a) What then is the uncertainty for the potential energy on the y-axis?
- b) This uncertainty can also act as a guide for how many decimal places your measurements should have. For example, if the smallest division on the scale is 0.1, we divide by two and obtain 0.05. Then if a measurement seems to be on the whole number 12 ml, we would write 12.00 ± 0.05 ml.

Based on this explanation, what would be the correct way of representing the measurement 50 kJ in the textbook example 5 on page 208

Scroll down for answers to a) and b).

Answers: a) $10/2 = 5$, so ± 5 b) 50 ± 5 kJ