

## Solutions

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Each answer shows the steps, then the **result**.

### 2.1

- Products' energy minus reactants' energy

### 2.2

- Lower

### 2.3

- From the reactants up to the peak

### 3.1 B

- higher than the reactants

### 3.2

(a)

- $E_a = 110 - 30 = 80 \text{ kJ}$

(b)

- $\Delta H = 70 - 30 = +40 \text{ kJ}$ , endothermic

### 3.3

- The one with the **lower**  $E_a$  reacts faster, because a larger fraction of collisions exceed the smaller barrier