GCSE Chemistry A (Gateway Science)

J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 14

1 A student investigates the energy changes during some chemical reactions.

She measures the temperature at the start and end of each reaction.

Look at her results.

Reaction	Temperature at start (°C)	Temperature at end (°C)	Temperature change (°C)	Type of reaction
A	20	25	+5	Exothermic
B	18	10	−8	endothermic
C	21	35	+14	exothermic
D	20	20	0	No reaction

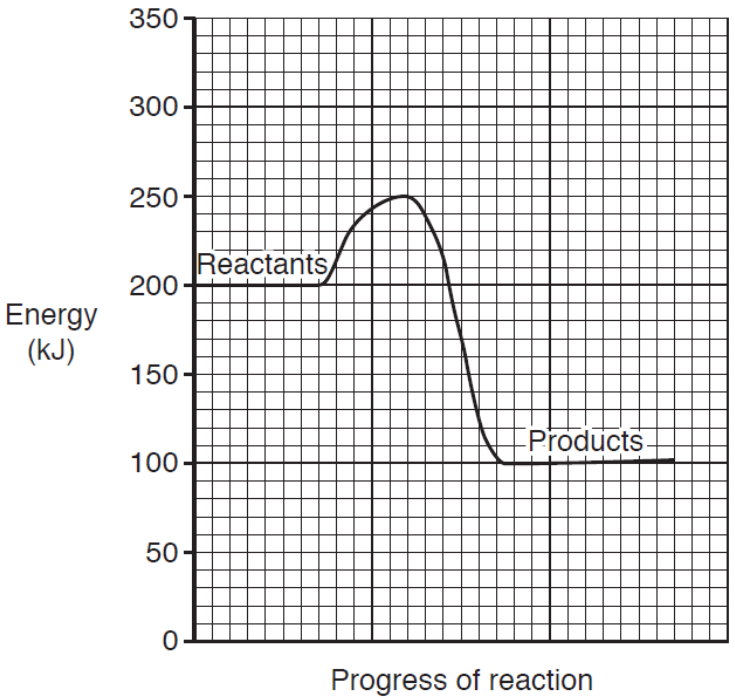
(a) Complete the table. **[3]**

(b) Which reaction has the largest energy change?

greatest temperature change

Answer = C **[1]**

(c) Look at the reaction profile for reaction **A**.



(i) Calculate the energy change in this reaction.

200 − 100 = 100

Answer = 100 kJ **[1]**

(ii) Calculate the activation energy.

250 − 200 = 50

Answer = 50 kJ **[1]**

Total Marks for Question Set 14: 6