• Classify the starting materials for each of the following reactions as nucleophile or electrophile in the boxes provided and indicate with  $\delta \oplus$  and  $\delta \ominus$  the polarisation of the H–Br and C–Br bonds in the starting materials.

Marks 4

nucleophile

electrophile

• Draw the constitutional formula for each of the following compounds.

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(Z)-4-methylhex-2-ene

trans-1,3-dichlorocyclohexane

(R)-butan-2-ol