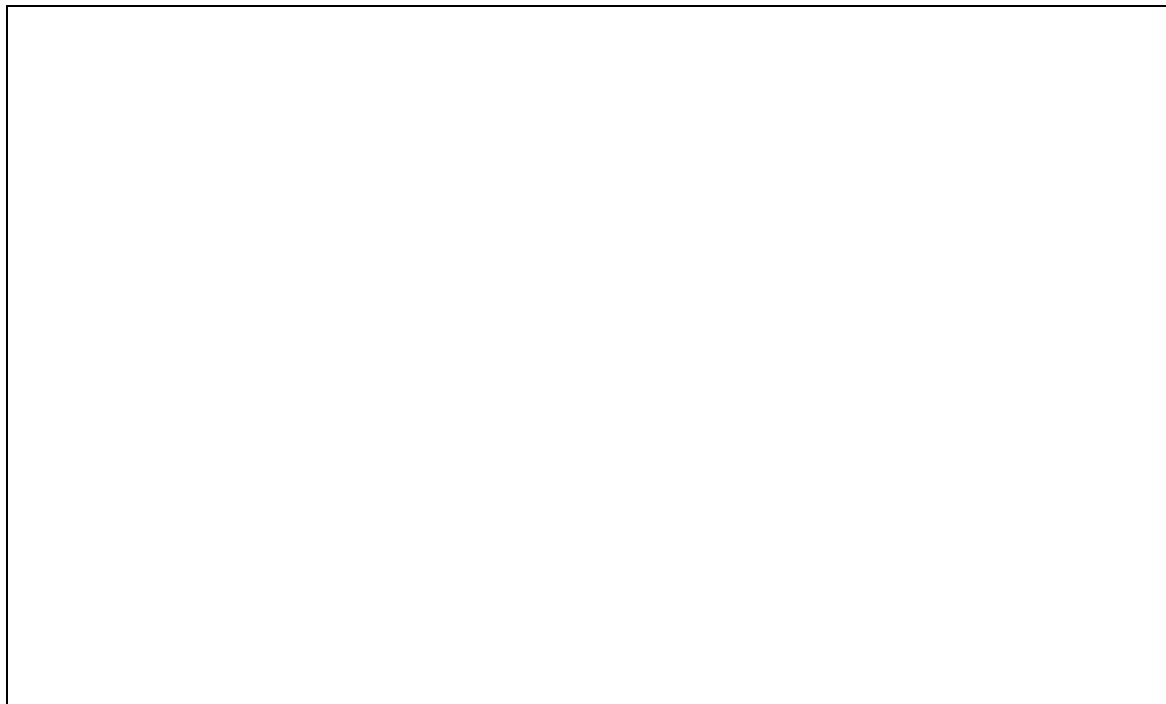


**Marks**  
**4**

- Draw all stereoisomers of the complex ion of  $[\text{CoCl}_2(\text{en})_2]\text{Cl}$ . Label the non-optically active isomer with its systematic name.  
(en = ethylenediamine = 1,2-ethanediamine =  $\text{NH}_2\text{CH}_2\text{CH}_2\text{NH}_2$ )



- What is a dative bond and does it differ from a covalent bond? Use examples from coordination chemistry and elsewhere to illustrate your answer.

**2**