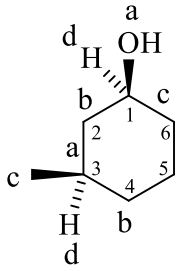
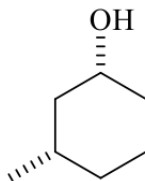
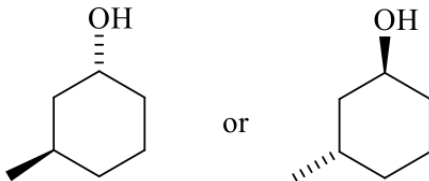


What is the systematic name for <b>G</b> ?	<b>Marks</b> <b>6</b>
<b>3-methylcyclohexanol</b>	
How many configurational stereoisomers of <b>G</b> are there?	<b>4</b>
Assign the absolute configuration of stereoisomer <b>G</b> <sub>1</sub> below. Show your working.	
<div><div></div><div><p><b>C<sub>1</sub>: (S)-</b> Around C<sub>1</sub>, the order of priorities is: <b>a: O &gt; b: C<sub>2</sub>(C,H,H) &gt; c: C<sub>6</sub>(C,H,H) &gt; d: H</b> <b>To distinguish between C<sub>2</sub> and C<sub>6</sub>, compare next C in chain</b> <b>b: C<sub>3</sub>(C,C,H) &gt; c: C<sub>5</sub>(C,H,H)</b> <b>Looking down C<sub>1</sub>-H bond, a → b → c is anticlockwise</b></p><p><b>C<sub>3</sub>: (R)-</b> Around C<sub>3</sub>, the order of priorities is: <b>a: C<sub>2</sub>(C,H,H) &gt; b: C<sub>4</sub>(C,H,H) &gt; c: C<sub>methyl</sub>(H,H,H) &gt; d: H</b> <b>As C<sub>2</sub> and C<sub>4</sub> are equivalent, C<sub>1</sub> &gt; C<sub>5</sub> is used to prioritise them. Looking down C<sub>3</sub>-H bond, a → b → c is clockwise</b></p></div></div>	
Draw <b>G</b> <sub>2</sub> (the enantiomer of <b>G</b> <sub>1</sub> ) and <b>G</b> <sub>3</sub> (a diastereomer of <b>G</b> <sub>1</sub> )	
<b>G</b> <sub>2</sub> (enantiomer of <b>G</b> <sub>1</sub> )	<b>G</b> <sub>3</sub> (diastereomer of <b>G</b> <sub>1</sub> )
	

**THE REMAINDER OF THIS PAGE IS FOR ROUGH WORKING ONLY.**