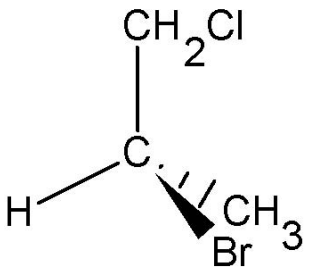
Stereochemistry Exercises

Name: Date:

For these exercises you may use molecular models and/or the 2-D images provided.
After completing the question please indicate what method you used to solve it using the provided answers.

1. Indicate whether the following molecule is "R" or "S":

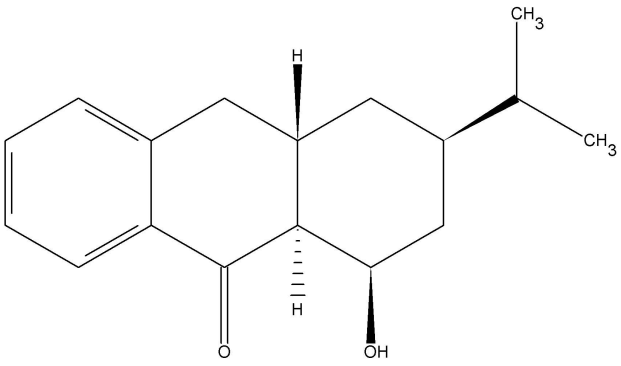


- R
- S

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

2. How many chiral centers does the following molecule have?

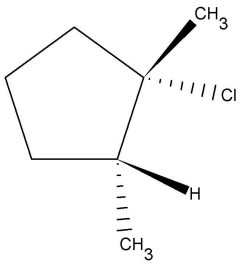


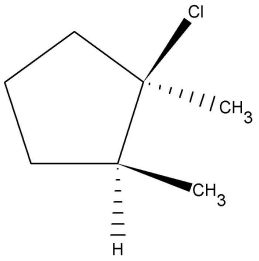
- 1
- 2
- 3
- 4
- 5
- 6

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

3. How are the following molecules related?



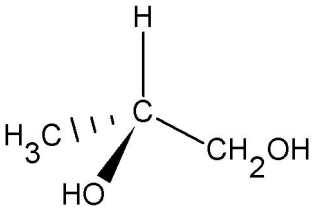


- identical
- enantiomers
- diastereomers

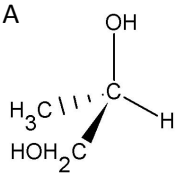
For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

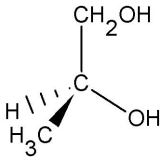
4. Choose the enantiomer of the compound below:



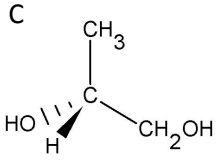
- A



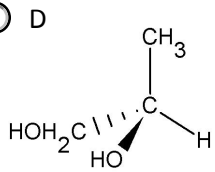
- B



- C



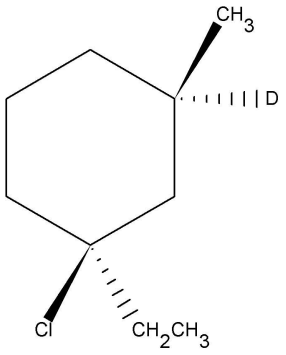
- D

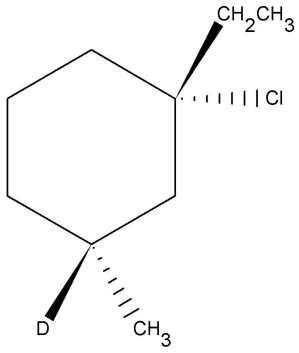


For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

5. How are the following compounds related?



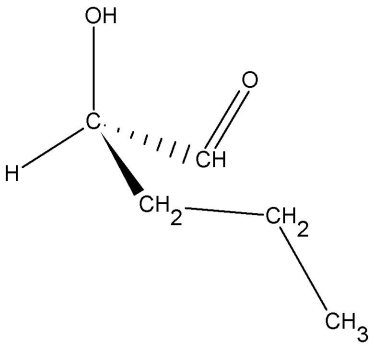


- identical
- enantiomers
- diastereomers

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

6. Indicate whether the following molecule is "R" or "S":

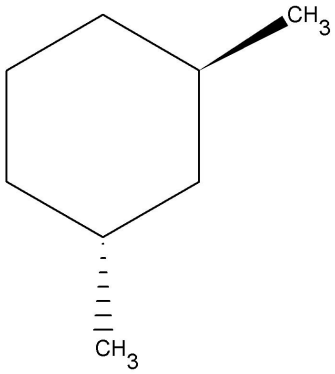


- R
- S

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

7. Is the following compound meso?

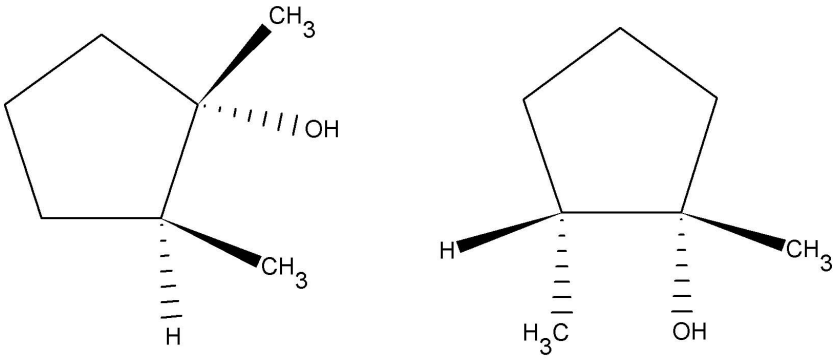


- Yes
- No

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

8. How are the following molecules related?

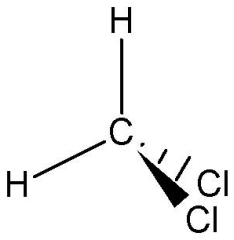


- identical
- enantiomers
- diastereomers

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

9. Does the following molecule have a plane of symmetry?

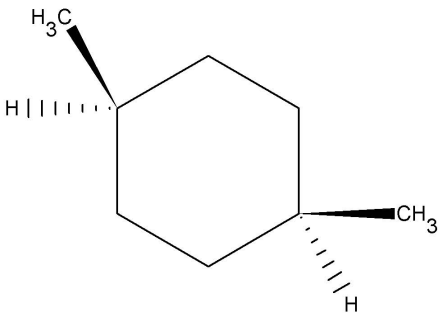


- Yes
- No

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both

10. Is the following molecule chiral?



- Yes
- No

For the previous question did you use:

- Molecular model kit
- 2-D drawings
- Both