CONCEPT: CONSTITUTIONAL ISOMERS

Constitutional isomers are molecules that have identical molecular formulas (all the same atoms), but have different _____. You will be asked to compare molecules and determine how they are related.

EXAMPLE: How are the following two compounds related?

A) Identical Compounds

B) Constitutional Isomers

C) Different Compounds

Steps to solve Constitutional Isomer Problems:

Step 1. **(Are the atoms all the same?)** Count non-_____ atoms *and* IHD in both compounds

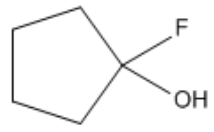
- If not exactly the same, they are _____
- If the same, then go to step 2

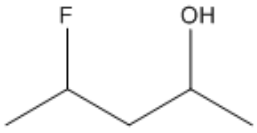
Step 2. **(Are the atoms all connected the same?)** Look for a _____ atom, then count bonds from there.

-If not exactly the same, they are _____

-If the same, then they are _____

EXAMPLE: How are the following sets of compounds related?





A) Identical Compounds

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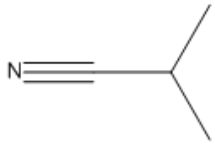

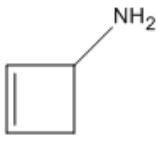

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