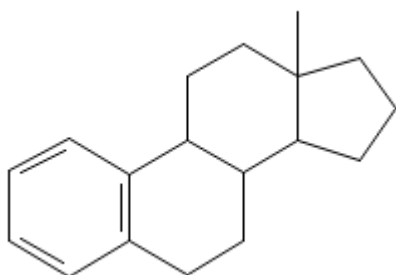


1. Search the PubChem database for a molecule that is the same as this one:



Note: I recommend finding a similar structure (it is sterol), copying its SMILES into the "draw structure" function and modifying it to reach the same molecule.

Write the ID of this molecule:

Write the SMILES of this molecule:

2. Find all molecules in PubChem that are similar to this molecule
  - a. How many are there?
  - b. What is the CID of the molecule it is most similar to?
  - c. Filter out the molecules that have a hydrogen bond acceptor number of 2-3. How many are there?
3. Find all the molecules in PubChem that contain the above molecule.
  - a. How many are there?
  - b. Filter out the molecules that have the lowest complexity. How many are there?
4. Find the molecules in LigandExpo that contain mannose (it has the three-letter abbreviation MAN).
5. Find molecules in DrugBank that contain the substructure listed above (Figure 1). Note: Use "Search" and "Chemical structure".
  - a. How many are there?
  - b. What is the name of the first one?