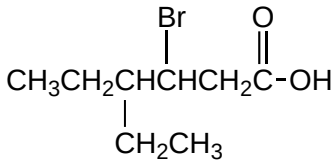
CONCEPT: NAMING CARBOXYLIC ACIDS

- **Recall:** Carboxylic acids possess a carbonyl carbon connected to a _____ (OH) group.
- Set of rules for naming carboxylic acids are similar to aldehydes.
  - □ The carbonyl carbon of the carboxylic acid is always numbered ___.
  - □ Modify the ending from -____ to -_____.

location-substituent-parent-modifier

EXAMPLE: Provide the systematic name for the following carboxylic acid.



STEP 1: Find the longest carbon chain (parent chain) and assign name according to the prefixes and modifier.

- □ Parent chain should include the COOH group and have _____ number of carbons.
- □ If a tie between longest chains, choose chain with more substituents.

STEP 2: Assign name to all the substituents.

STEP 3: Start numbering the chain at the carbon of the _____ group.

STEP 4 to 6: Repeat steps from previous naming topics.

PRACTICE: If the substituent name of the OH group is hydroxy in the presence of a carboxylic acid, provide the systematic name for the following compound.