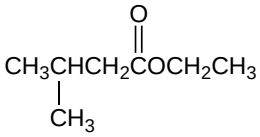
CONCEPT: NAMING ESTERS

- **Recall:** Esters possess an oxygen atom connected to an _____ group and a carbon chain containing a _____ group.
- Esters have a unique naming system.
  - □ The carbon chain with the _____ group is named as though it was a carboxylic acid.
  - □ Modify the ending from -_____ to -_____.

substituent-parent-modifier

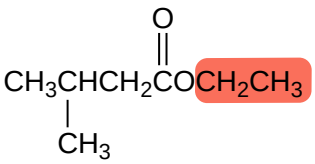
EXAMPLE: Provide the systematic name for the following ester.



STEP 1: Identify the _____ group connected to the oxygen atom.

STEP 2: Name the alkyl group as a _____.

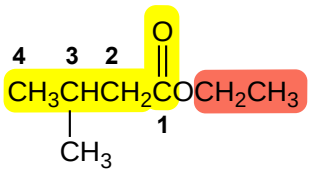
- □ _____ numerical location for the alkyl group is needed.



STEP 3: Identify the carbon chain connected to the _____ group.

STEP 4: Figure out the length of the carbon chain starting from the carbonyl group.

- □ The carbonyl group as carbon ___ is implied.



STEP 5: Assign _____ (location) for each substituent on the carbon chain with the carbonyl group.

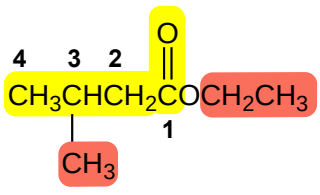
- □ When more than 1 identical substituents, use prefixes: _____ 2, _____ 3, _____ 4.

STEP 6: Name all substituents in _____ order; prefixes do not count.

STEP 7: Use _____ to separate numbers from numbers, and _____ to separate letters from numbers.

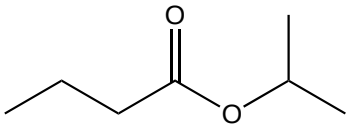
- □ Letters are not separated from letters.

STEP 8: Write the alkyl group name with spaces.

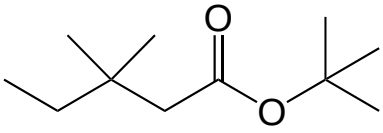


CONCEPT: NAMING ESTERS

PRACTICE: Provide the systematic name for the following ester.

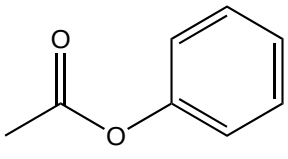


PRACTICE: Provide the systematic name for the following ester.

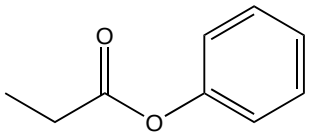


PRACTICE: If the substituent name of benzene is phenyl, which structure represents phenyl propanoate?

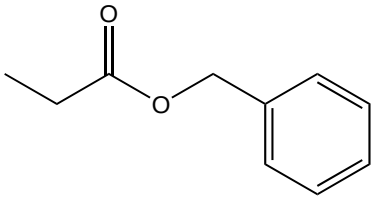
a)



b)



c)



d)