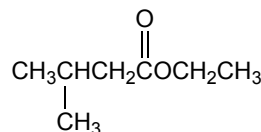


## CONCEPT: NAMING ESTERS

- **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

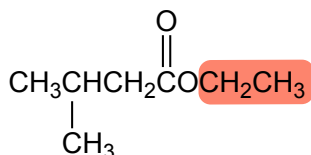
**EXAMPLE:** Provide the systematic name for the following ester.



**STEP 1:** Identify the \_\_\_\_\_ group connected to the oxygen atom.

**STEP 2:** Name the alkyl group as a \_\_\_\_\_.

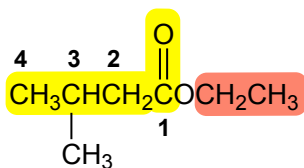
- \_\_\_\_\_ numerical location for the alkyl group is needed.



**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.

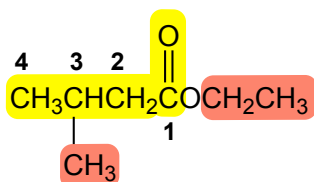
- When more than 1 identical substituents, use prefixes: \_\_\_\_\_ 2, \_\_\_\_\_ 3, \_\_\_\_\_ 4.

**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.

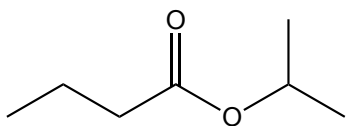
- Letters are not separated from letters.

**STEP 8:** Write the alkyl group name with spaces.

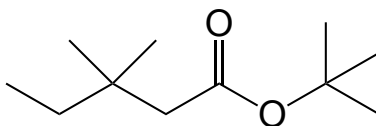


**CONCEPT: NAMING ESTERS**

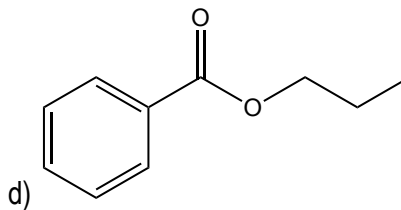
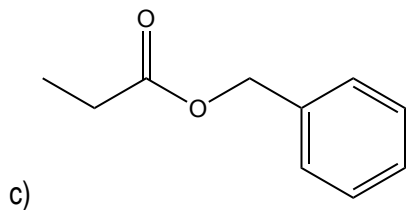
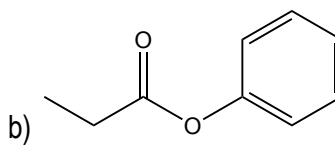
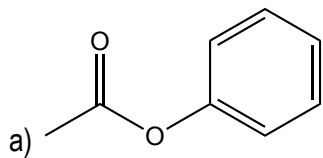
**PRACTICE:** Provide the systematic name for the following ester.



**PRACTICE:** Provide the systematic name for the following ester.



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



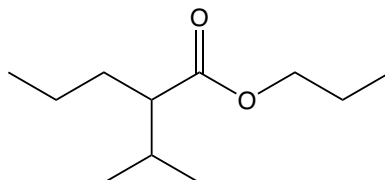
## CONCEPT: NAMING ESTERS

### Common Naming

- Follows same rules as IUPAC, except parent chain consists of common name prefixes with - \_\_\_\_\_ ending.

substituent-prefix-modifier

**EXAMPLE:** Provide a common 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 and name carbon chain including 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.

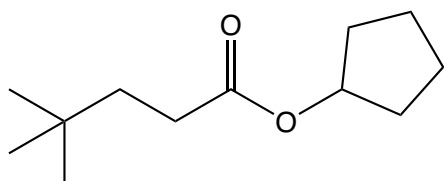
**STEP 6:** Name all substituents in \_\_\_\_\_ order; prefixes do not count.

**STEP 7:** Use \_\_\_\_\_ to separate numbers from numbers, and \_\_\_\_\_ to separate letters from numbers.

- ☐ Letters are not separated from letters.

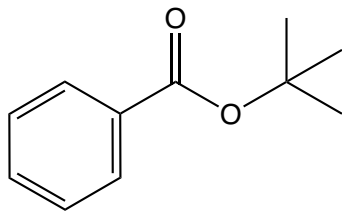
**STEP 8:** Write the alkyl group name with spaces.

**PRACTICE:** Provide common name for given compound.



**CONCEPT: NAMING ESTERS**

**PRACTICE:** Give a common name for the following compound.



**PRACTICE:** Draw structure for given name: hexyl 3-chlorobutyrate.