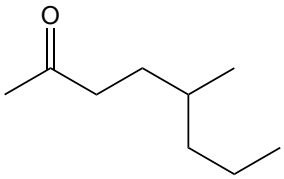
CONCEPT: NAMING KETONES

- **Recall:** Ketones possess a carbonyl carbon connected to ___ _____ atoms.
- Set of rules for naming ketones are similar to alcohols.
    - □ Modify the ending from -____ to -____.

EXAMPLE: Provide the formal name for the ketone shown.



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

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

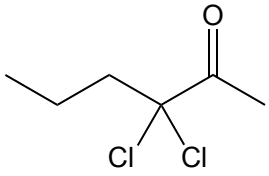
STEP 2: Assign name to all the substituents.

STEP 3: Start numbering the chain from the end closest to the _____ carbon.

- □ If a tie, then number from end closest to the next substituent.
- □ If still a tie, number in _____ order.
- □ Assign location to the _____ carbon.

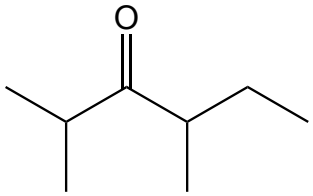
STEP 4 to 6: Repeat steps from previous naming topics.

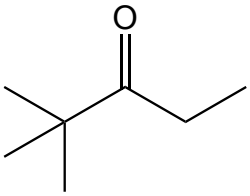
PRACTICE: Provide the systematic name for the following ketone.

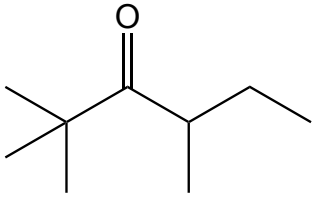


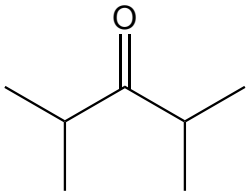
CONCEPT: NAMING KETONES

PRACTICE: Which of the following compounds represent 2,4-dimethyl-3-pentanone?

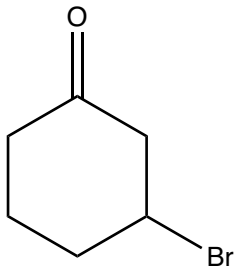
a) 

b) 

c) 

d) 

PRACTICE: Provide the systematic name for the following cyclic ketone.

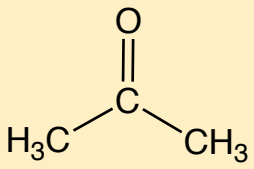


CONCEPT: NAMING KETONES

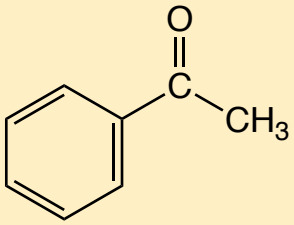
Common Naming

● Certain ketones have unique names given before IUPAC naming system was developed.

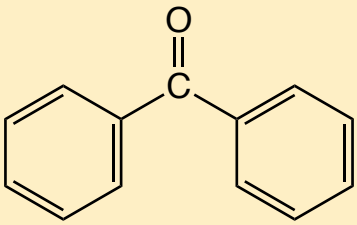
Unique Common Names



acet____



aceto_____

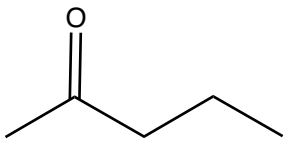


benzo_____

● For the rest of the ketones, common name consists of 2 _____ group names followed by _____.

substituent-substituent-ketone

EXAMPLE: Provide a common name for the ketone shown.



STEP 1: Identify the ____ alkyl groups connected to the carbonyl carbon.

STEP 2: Name the two alkyl groups alphabetically as _____.

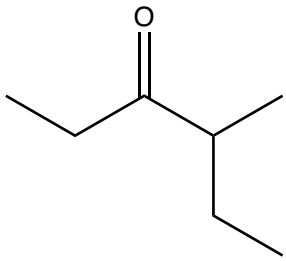
□ If there are identical alkyl groups, use the numerical prefix _____.

STEP 3: End the name of the compound with _____.

□ Write the name with spaces.

CONCEPT: NAMING KETONES

PRACTICE: Give common name for following ketone.



PRACTICE: Provide common name for given ketone.