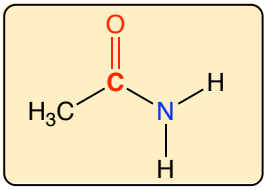
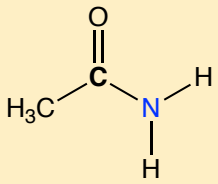
CONCEPT: NAMING AMIDES



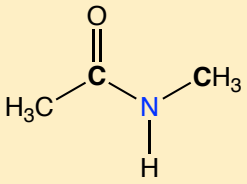
Intro to Amides

- **Recall:** Amides consist of a _____ group connected to ____ (amine) group.
  - □ Amides can be classified as _____, _____, or _____.

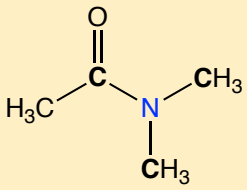
Amide Classification



___ amide

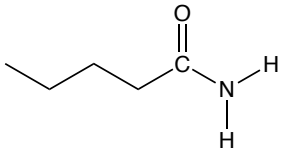


___ amide



___ amide

EXAMPLE: Classify given compounds as primary, secondary, tertiary amides, or neither.

a) 

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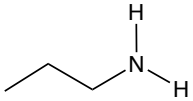
b) 

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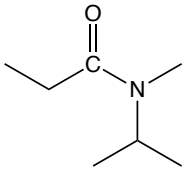
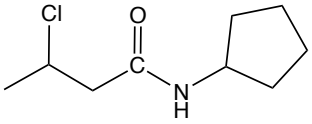
c) 

_____

d) 

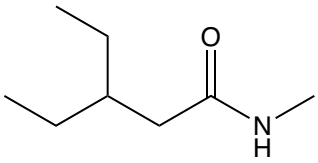
_____

IUPAC Naming

- 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 a systematic name for the following amide.



STEP 1: Identify the _____ group(s) connected to the nitrogen atom.

STEP 2: Name the alkyl group(s) as a _____.

- □ *N-* is written before alkyl name to indicate it is connected to nitrogen atom.
  - When more than 1 identical substituent, use prefix di-.

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

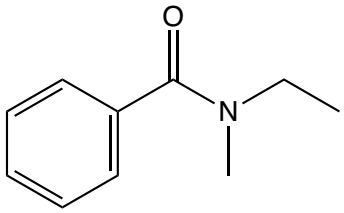
STEP 4: Figure out the length of the carbon chain starting from the carbonyl group.

- □ The carbonyl group as carbon ___ is implied.

STEP 5-7: Repeat from Naming Esters Topic.

CONCEPT: NAMING AMIDES

PRACTICE: Give IUPAC name for the following amide.



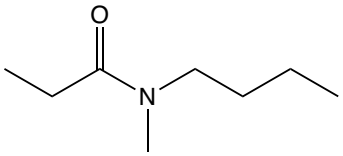
PRACTICE: Draw structure from provided IUPAC name: 4-hydroxy-*N*-methyl-*N*-propylheptanamide.

CONCEPT: NAMING AMIDES

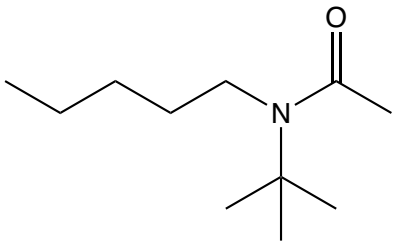
Common Naming

- Follows same rules as IUPAC, except parent chain consists of common name prefixes.
  - □ Modify the ending from -_____ to -_____.

EXAMPLE: Provide a common name for the following amide.



PRACTICE: Assign a common name to the following.



PRACTICE: Draw a structure from the following name: *N*-cyclopentyl-*N*-propylvaleramide.