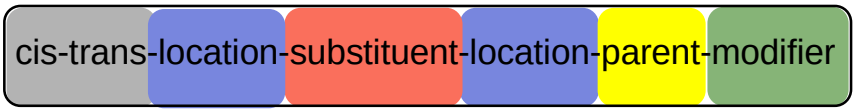
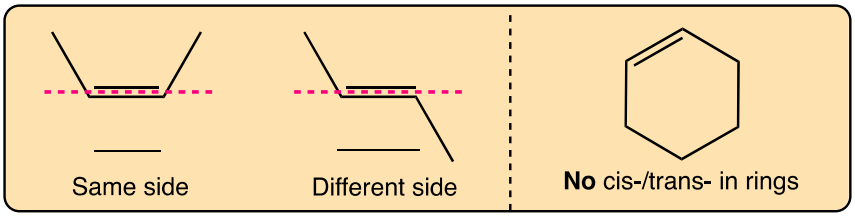
CONCEPT: NAMING ALKENES

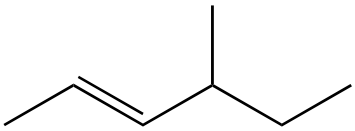
- **Recall:** Alkenes possess a C—C _____ bond.
- Set of rules for naming alkenes is unique.
  - □ Modify ending from -ane to _____.



- **Recall:** Geometric isomers have a different spatial orientation around a _____ bond.
- _____ is not possible around a double bond (π).
  - □ We need to indicate which side of the double bond each group is on (cis or trans).
    - Only applies when there are ____ groups around a π bond.



EXAMPLE: Determine systematic name of the following alkene.



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

- □ Parent chain should include a _____ bond and have _____ number of carbons.
  - If cyclic, add prefix _____ to the name of the alkene chain.
- □ 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 _____ bond.

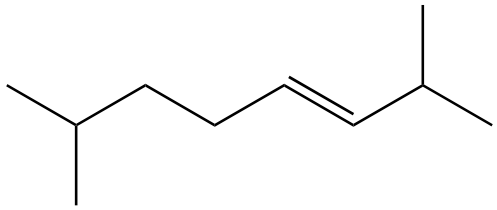
- □ Assign location to ____ double bonded carbon.
  - If double bond in a ring, location is _____ necessary.

STEP 4-6: Repeat from previous naming topic.

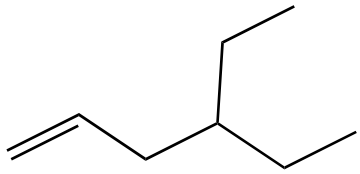
STEP 7: Add _____ or _____ designation to the front of the name, if applicable.

CONCEPT: NAMING ALKENES

PRACTICE: Provide systematic name for given alkene.



PRACTICE: Provide systematic name for given alkene.



PRACTICE: Draw a structure for cis-5-methyl-2-hexene.

PRACTICE: Determine structure of the following alkene**:** 3-isopropylcyclohexene.