

Cis-Trans Isomers

Name - _____

1.) Draw the actual shape of the following molecules using condensed structures.

- | | | |
|--------------------|--------------------|----------------------------|
| (a) trans-2-hexene | (c) cis-3-octene | (e) 2-butyne |
| (b) 3-hexyne | (d) trans-4-decene | (f) 4-methyl-cis-2-pentene |

a.) b.) c.)

d.) e.) f.)

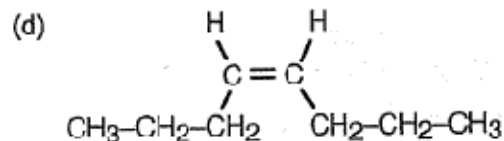
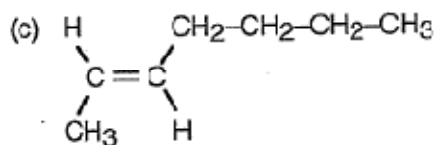
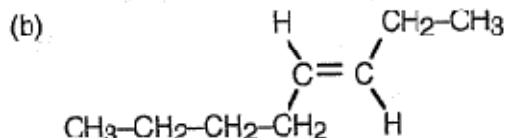
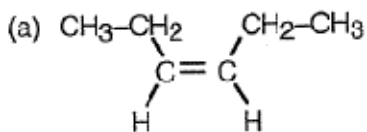
2.) Which of the following molecules can exhibit cis-trans isomerism? (hint - draw them!)

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|--------------|---------------|------------------------|
| (a) 1-butene | (c) 4-heptyne | (e) 3-ethyl-3-hexene |
| (b) 3-hexene | (d) 2-octene | (f) 2,5-dimethyloctane |

a.) b.) c.)

d.) e.) f.)

3.) Name the following as "cis" or "trans" isomers.



a.) b.)

c.) d.)