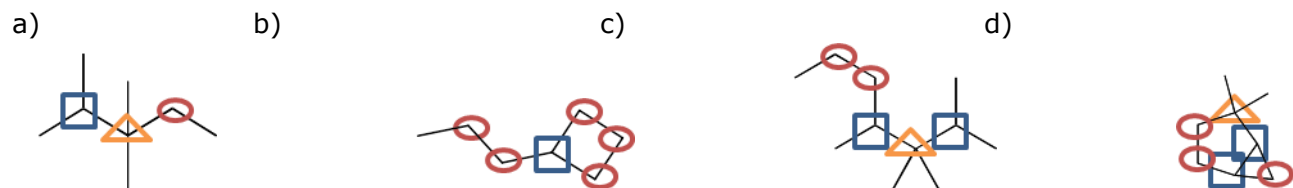
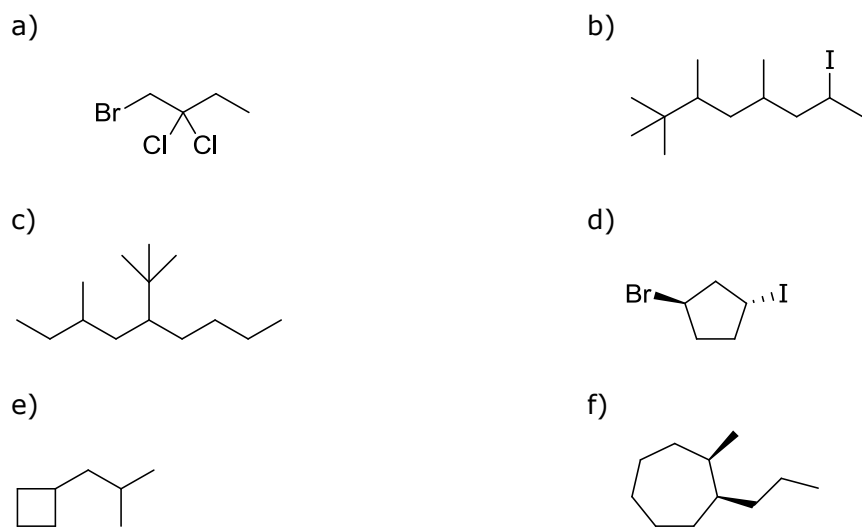


PRACTICE PROBLEMS UNIT 4 – KEY

4A.1  $2^\circ = \text{○}$  ,  $3^\circ = \text{□}$  ,  $4^\circ = \text{△}$  , all others are  $1^\circ$  ,



4B.1



4B.2

- a) 2-bromo-3-ethyl pentane  
 b) 2-bromo-5-fluoro hexane  
 c) 2,2,5,6-tetramethyl heptane  
 d) 5-isopropyl-6-propyl decane  
 e) 3-ethyl-2,2,6-trimethyl octane  
 f) 2,2,3,8-tetramethyl decane  
 g) 6-bromo-2,2,5-trimethyl heptane  
 h) 1-chloro-3-ethyl hexane  
 i) 5-s-butyl-6-isopropyl decane  
 j) 4,4-diiodo-2,2,6,7-tetramethyl octane  
 k) 1,2,4-trimethyl cyclooctane  
 l) *trans*-1,3-dimethyl cyclohexane  
 m) 3-cyclobutyl pentane  
 n) 4-bromo-1,2-dimethyl cyclohexane  
 o) *cis*-1-bromo-2-chloro cyclopentane  
 p) propyl cyclobutane  
 q) 2,2,3-trimethyl pentane  
 r) 2,3,3,4-tetramethyl heptane  
 s) 4-*t*-butyl-6-propyl nonane  
 t) 3,5-diethyl-2-methyl octane  
 u) 3,5,5-triethyl-2,2-dimethyl octane

- v) 5-s-butyl-1,7-dichloro nonane
- w) 4-isopropyl-3-methyl heptane
- x) 4-fluoro-2,2-dimethyl hexane
- y) 2,3,6-trimethyl-5-propyl octane
- z) 1-chloro-7,8-dimethyl nonane
- aa) 2,3,3-trimethyl pentane
- bb) 1-cyclopropyl hexane
- cc) 5-ethyl-2,2,3,5-tetramethyl octane
- dd) ethyl cycloheptane
- ee) 8-ethyl-4-isopropyl-3-methyl decane
- ff) *trans*-1-chloro-3-ethyl-cyclohexane