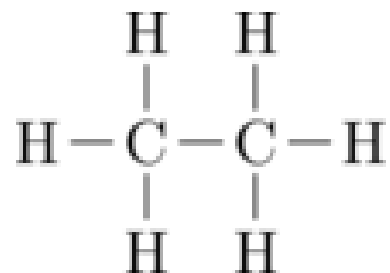
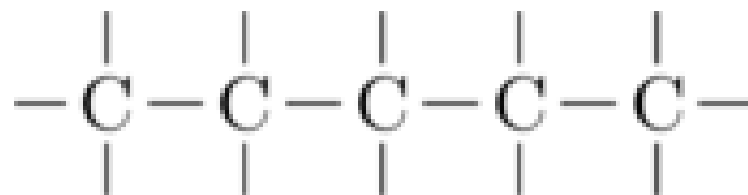
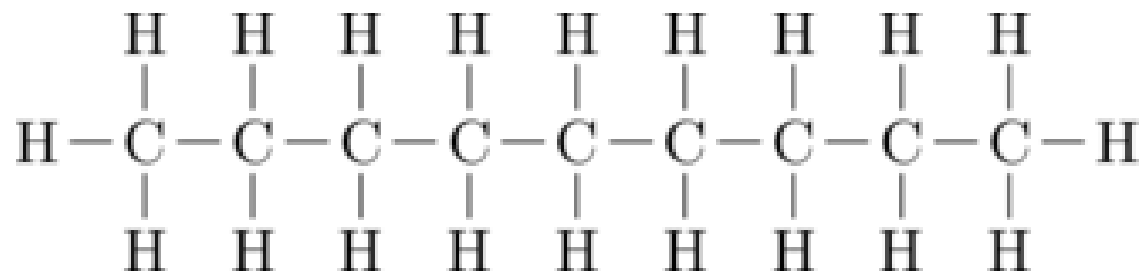
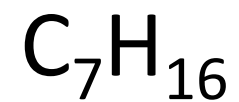


Petroleum Quiz 1 Review

1) Name the molecules



2) Draw molecules.

a) **Structural formula** of octane

b) **Dot diagram** of hexane

c) **Structural formula** of methane

3) Valence Electrons

- a) How many valence electrons does a lone sulfur atom have?
- b) How many valence electrons does a lone carbon atom have?
- c) How many total electrons does a lone carbon have?
- d) How many electrons are around a carbon atom in a compound?

4) Density

HDPE Plastic: 0.95 g/mL

Water: 1.0 g/mL

Aluminum: 2.7 g/mL

Lead: 11 g/mL

Mercury: 13 g/mL

Platinum: 21 g/mL

- a) Would lead float on mercury?
- b) Would platinum float on mercury?
- c) What is the density of a sample of material XYZ if its volume is 38 mL and its mass is 51 g?
- d) Would XYZ float on water?
- e) Would XYZ float on mercury?

5) Isomers

- Draw four different isomers of nonane.

6) Viscosity Lab

For alkanes, as # of Carbons increases,

A) _____ increases.

B) The answer to A) causes _____
to _____ because _____.

7) Alkane formulas

a) How many hydrogen atoms are in a 38 carbon alkane?

b) What is the formula of a 12345 carbon alkane?