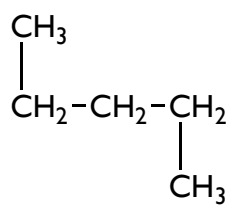**Principles of Organic Chemistry**
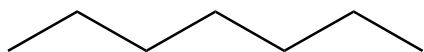**In-Class Problems - Chapter 12 (Alkanes)**

1. Use the general formula for alkanes to determine the following:
    a. What is the molecular formula of an alkane that has 7 carbon atoms?

    b. What is the molecular formula of an alkane that has 10 hydrogen atoms?

    c. What is the molecular formula of an alkane that has 26 hydrogen atoms?

2. Draw the following:
    a. an expanded structural formula for propane

    b. the condensed structural formula for hexane

    c. the line-bond formula for hexane

3. Name the following molecules:

a.

CH$_3$
|
CH$_2$-CH$_2$-CH$_2$
|
CH$_3$

b.

c.

CH$_2$-CH$_3$
|
CH$_2$-CH$_2$-CH$_2$
|
CH$_3$