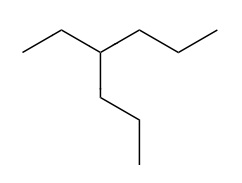
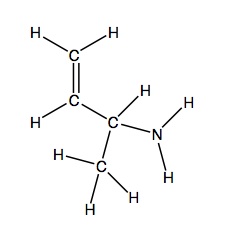
Radioactivity and Nuclear Chemistry Part II

1. What is the correct name for the compound depicted in the skeletal structure below?  
   
2. Which of the following is a structural isomer of 2-methylpentane? Choose from:

|  |
| --- |
| cyclohexane |
| 2-methyloctane |
| 2,2-dimethylbutane |
| 3-ethylheptane |
| *n*-butane |

1. How many of the carbons in the molecule depicted below are chiral?  
   
2. What kind of reaction converts an unsaturated hydrocarbon into a saturated one? Choose from:

|  |
| --- |
| substitution of a hydrogen with a halogen under high energy light |
| a hydrogenation reaction in the presence of a catalyst |
| addition of a halogen to an alkene |
| combustion reaction with oxygen |

1. How would the compound shown below be classified?

