



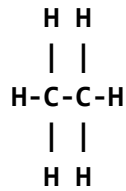
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## Weighting Hydrocarbons

*2 points*

### Introduction

In organic chemistry, the hydrocarbon “alkane” is a molecule made up of linked Carbon (C) atoms with Hydrogen (H) atoms branching off each Carbon like a tree structure. Here is the internal structure of ethane (C<sub>2</sub>H<sub>6</sub>):



Since you are frequently going to experiment with hydrocarbons in the chemistry lab, you decided to code a program to quickly find out the atomic mass of a given molecule. Given the number of Carbon atoms in a hydrocarbon, you can easily calculate the number of Hydrogen atoms:

$$\text{number of H atoms} = (\text{number of C atoms} * 2) + 2$$

The atomic weight of the hydrocarbon molecule is calculated by multiplying the number of Carbon atoms by 12 (its atomic mass) and adding the number of Hydrogen atoms (the atomic mass of Hydrogen is 1).

Can you write a simple program to find the formula and atomic mass of the corresponding hydrocarbon given the number of atoms of Carbon?

### Input

The input is a positive integer representing the number of Carbon atoms

### Output

The formula given the number of C and H atoms along with its atomic weight.



### Example 1

Input

3

Output

The atomic mass of C3H8 is 44

### Example 2

Input

2

Output

The atomic mass of C2H6 is 30