

## Answer on Question #43835 - Chemistry - Organic Chemistry

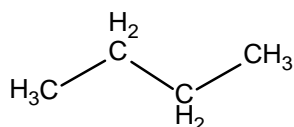
### Question:

The second carbon in the chain has how many carbon-carbon bonds for 2-methylpropane, an isomer of butane?

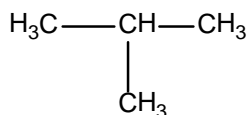
### Answer:

2-methylpropane and butane have the same empirical formula –  $C_4H_{10}$ , that's why they are the isomers.

The structure of butane is:



The structure of 2-methylpropane is:



We see that the second (or central) carbon atom in the molecule of 2-methylpropane has 3 carbon-carbon bonds.

**Answer:** 3 carbon-carbon bonds.