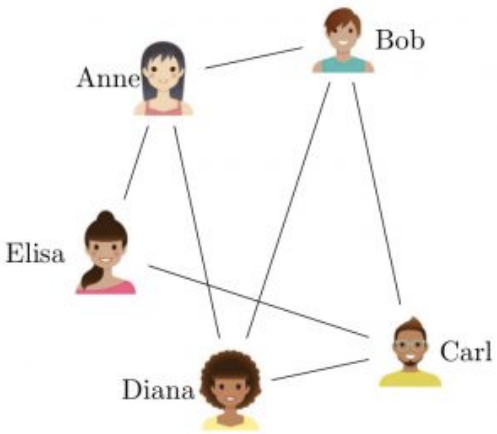
Mathletes Problem of the Week #2

It's a Math Party!



A mathematician decided to throw a party. Including the mathematician and her husband, there were five couples, which means there were 10 people in total at the party.

a) After several minutes of mingling everyone meets and shakes hands with every other person in attendance, excluding his or her partner. How many total handshakes were exchanged at the party?

b) During the party, the mathematician posed the following math puzzle to the group: "I have three daughters. The product of their ages is 72, and the sum of their ages is the same as our house number. What are their ages?" The guests opened the front door and checked the house number. One guest asked for more information. The mathematician responded, "my oldest daughter loves strawberry pudding." The same guest then announced their ages. What are the ages of the mathematician's daughters?

Solutions & Explanations: (Solve one or solve them both. Attach more paper if you need to!)

Name _____ **Class** _____

(First and last name, please!) **Solutions due: May 18th**