Order of Operations HW 3: Cost of Flies

In this homework, we'll look back to the flies that we chatted about at the beginning of the OOO notes! In the table below, we have their names and prices, and also 5 different arrangements of flies that 5 different fisherpeople might purchase. Each row represents a different fisherperson heading into Fly Fisher's Place to get some flies for an upcoming trip.

1. **(5 points)** Give me the total cost of the flies in each row! in the following table to figure out the total cost for various combinations of flies purchased.

	Number of each fly bought!		
Candyman ($6 each)	**Golden Stone ($3 each)**	**Copper John ($2.75 each)**	**Total Cost of the flies in this row**
1	1	1	
5	0	10	
12	12	12	
6	7	2	
0	0	30	

Now, suppose I look at the scenario in row #1: the total cost was $11.75 (if you want to check your answers, and learn some new cool Sheets commands, watch this video where I'll show you how to do that in this Google Sheet!).

OK – now look back at row #1…the **average** cost per fly I purchased was about $3.92. How did I get this number?

$$\text{Average cost of a number of flies} = \frac{\text{total cost of all flies in that row}}{\text{number of flies purchased in that row}} = \frac{\$11.75}{3} \approx \$3.92$$

2. **(1 point)** Which fly arrangement has the ***lowest*** average cost?

3. **(2 points)** Explain how you arrived at your previous answer in a couple of sentences.

4. **(2 points)** How could you have figured out with arrangement had the lowest average cost *without* actually calculating all five average costs? Explain. (If you actually arrived at your previous answer without calculating all the average costs, you don't have to repeat your process here.)