

College Prep Chemistry of the Earth System

Assignment 1I – Average Atomic Mass (Part I)

In Class Example

Define <u>Fractional</u> <u>Abundance</u>	Define Ratio
<p>A Part of a whole</p> <p>A ○ 10 (Total 20) $10/20 = 0.50$</p> <p>B ○ 10 $10/20 = 0.50$</p>	<p>Compare the frac. abund. of each object in a whole. (FA X Value)</p>

Calculate the average values for the following situations

A local coffee shop sells four sizes of coffee during breakfast

Size	Small	Medium	Large	XL
Cost	2.50	4.00	5.50	7.00
% Abund	1.1%	58.3%	15.2%	25.4%
Frac* Abund	0.011	0.583	0.152	0.254

*Divide by 100%

$$\frac{1.1\%}{100\%} = 0.011$$

Size	Cost	X	Frac Abundance	=	Ratio
Small	2.50	X	0.011	=	0.0275
Medium	4.00	X	0.583	=	2.332
Large	5.50	X	0.152	=	0.836
XL	7.00	X	0.254	=	1.778

Calculate the average selling price for a coffee at the coffee shop

Ratio Small	Ratio Medium	Ratio Large	Ratio XL	Average Coffee Cost	
0.0275	2.332	0.836	1.778	4.97	Rnd to 2 after