Finding the **Average Atomic Weight** for a Newly Discovered Element

Purpose:

To find the average "atomic weight" for the element, **Skittles (Sk)**, and to understand the concept of isotopes.

Materials:

calculator 1 package of Skittles candies

Procedure:

1) **Complete the data table:**
   a) **Enter the different colors (isotopes)**
   b) **Count the number of each isotope (TOTAL # ATOMS)**
   c) **Calculate the total atomic weight of each isotope. (TOTAL WEIGHT)**
   d) **THEN find the *average* atomic weight for your sample of the element Sk. by dividing the total weight by the total # atoms.**
   e) **Record your average to two decimal places.**

red-12amu (Sk-12)
green-10amu (Sk-10)
orange-8amu (Sk-8)
yellow-7amu (Sk-7)
purple-9amu (Sk-9)

Data:

color	amu	Number of isotope	total weight of each isotope amu x number of isotope	TOTALS
red	12			
green	10			
orange	8			
yellow	7			
purple	9			
			TOTAL # ATOMS	
			TOTAL WEIGHT	
			AVERAGE WEIGHT	

Conclusion:

Fill in the missing atomic weight in the periodic table cell for element #4 **Sk**