(#5-1)
Name
Cooking Factor Label

This assignment uses cooking to assess factor label techniques.

Table 6.1 - **Cream of Tomato** – recipe produces 5 cups of soup

1 Tbs butter	Freshly ground blk pepper	28 oz pureed tomatoes
1 ½ cups chopped onion	½ tsp celery salt	1 tsp honey
2 bay leaves	½ tsp allspice	1 cup milk
½ tsp salt	2 Tbs flour	Swiss cheese

I. Use the above recipe to answer the following questions.
SHOW ALL WORK ANSWERS OPTIONAL

1. If Billy Bob (BB for short) uses 2 tsp of allspice, how much soup will he produce?

$$2\,\text{tsp} \cdot \frac{5\,\text{cup}}{0.5\,\text{tsp}} = 20\,\text{Cups Soup}$$

2. If BB uses 1.5 cups of milk, how much soup will he produce?

$$1.5\,\text{cup} \cdot \frac{5\ \text{Soup}}{1\ \text{cup milk}} = 7.5\,\text{cup Soup}$$

3. If BB has 13 guests and want to make 14 cups of soup, how much flour must he use?

$$14\,\text{Cup} \cdot \frac{2\,\text{Tbs Flour}}{5\ \text{cup Soup}} = 5.6\,\text{Tbs Flour}.$$

4. How many oz of pureed tomatoes would BB need in problem # 3?

$$5.6\,\text{Tbs} \cdot \frac{28\,\text{oz}\ \text{oz tomatoes}}{2\,\text{Tbs Tbs Flour}} = 78.4\,\text{oz}.$$

5. If BB could only find 11 oz of pureed tomatoes, how many cups of soup can he make?

$$11\,\text{oz} \cdot \frac{5\ \text{Cups Soup}}{28\ \text{oz}} = 1.96\ \text{Cups Soup}$$

Table 6.2 – **Volume Conversions**

1 teaspoon (tsp) = 5 mL	1 Tablespoon (Tbs) = 15 mL
4 cups = 1 quart	8 fluid ounces (oz) = 1 cup
1 Tbl = 3 tea	16 Tbl = 1 Cup

II. Use Table 6.1 and 6.2 to answer the following questions.

1. If Billy Bob (BB for short) uses 6 mL of celery salt, how much soup can he make (in cups)?

$$6\,\text{mL} \cdot \frac{1\ \text{tsp}}{5\ \text{mL}} \cdot \frac{5\ \text{Cups}}{0.5\ \text{Tsp}} = 12\,\text{Cups Soup}$$

mL → tsp → Cups

2. If BB uses 3.5 bay leaves, how much flour must he use (in mL)?

$$3.5\,\text{bL} \cdot \frac{2\ \text{Flour (Tbs)}}{2\ \text{bL}} \cdot \frac{15\ \text{mL}}{1\ \text{Tbs}} = 52.5\,\text{mL Flour}$$

bL → Flour (Tbs) → Flour (mL)

Cups

3. How much honey must BB use if he were to make 6 cups of soup (in cups)?

$$6 \text{ cups} \cdot \frac{1 \text{ Tsp}}{5 \text{ Cup}} \cdot \frac{1 \text{ Tbs}}{3 \text{ Tsp}} \cdot \frac{1 \text{ Cups}}{16 \text{ Tbs}} = 0.025 \text{ cups}$$

Cups Soup → tsp Honey → Tbs → Cups

Table 6.3 – **Weight Conversions** – note – these are not accurate measurements

1 Tbs of celery salt = 22 grams	1 Tbs of salt = 21.5 grams
1 Tbs of allspice = 27 grams	1 Tbs of flour = 19 grams
1 cup of soup = 567 grams	1 Tbs of honey = 54 grams

II. Use tables 6.1,2 and 3, to complete the following questions.
PLEASE ONLY SHOW THE PATHWAY

1. If I want to produce 3 Kg of soup, how much salt must I use?

Example: Kg soup → g soup → cups soup → tsp salt

2. If I keep everything proportional and use 25 grams of allspice, how much soup will I produce (in grams)?

25g AS → Tbs AS → Tsp AS → Cups Soup → grams Soup

3. If I use 16 grams of flour, how much soup could I produce (in grams)?

16g Flour → Tbs Flour → Cups Soup → grams Soup