

4.3 Snack Time

Focus: reducing ratios and fractions

Warm Up

1. How many metres are in a kilometre?

2. How many grams are in a kilogram?

3. a) What does the prefix *kilo* mean?

4. Convert to the specified unit.

a) 15 mL = _____ L

b) 0.35 kL = _____ L

c) 120 L = _____ kL

d) 1.35 L = _____ mL

b) How many litres are in a kilolitre?

5. Use the diagram to show

$$\frac{1}{2} + \frac{1}{4}$$

6. What is $\frac{1}{2} + \frac{1}{4}$ equal to?

Using Ratios

- Use the following recipe to answer the questions on the next page.

Vegetable Dip (Serves 6)

250 mL sour cream

160 mL mayonnaise

15 mL finely chopped onion

15 mL chopped fresh dill

20 mL chopped fresh parsley

10 mL sea salt

Mix all ingredients. Chill the mixture for several hours.
Use as a dip for fresh vegetables.

1. What type of units are used in this recipe?

IMPERIAL UNITS

METRIC UNITS

**Tips for
Identifying
Metric and
Imperial Units**



2. a) What is the ratio of onion to dill? _____

Write the ratio in lowest terms. _____

b) What is the ratio of parsley to sea salt?

Express the ratio in lowest terms. _____

c) What is the ratio of dill to parsley? _____

Write the ratio in lowest terms. _____

- The recipe makes enough dip for 6 people.

3. How many people are in your class? _____

Round this number up to the closest multiple of 6. _____

4. By what factor does the recipe have to be multiplied to make enough dip for the whole class? _____

"By what factor" means "multiplied by what number."

5. Calculate how much of each ingredient you need to make enough dip for the whole class. Record each amount in the table.

Ingredient	Amount in One Recipe	Amount Needed for Whole Class
Sour cream	250 mL	
Mayonnaise	160 mL	
Onion	15 mL	
Dill	15 mL	
Parsley	20 mL	
Sea salt	10 mL	

- The following recipe is for peppermint ice cream.

Peppermint Ice Cream (Serves 5)

2 cups whipping cream	3 lb coffee can with plastic cover
$\frac{1}{2}$ cup sugar	1 lb coffee can with plastic cover
$\frac{1}{2}$ tsp vanilla extract	Rock salt
$\frac{1}{2}$ tsp peppermint extract	Crushed ice or snow
Crushed peppermint stick	

Place 1 lb can in centre of 3 lb can.
 Fill 1 lb can with ice cream ingredients.
 Layer crushed ice or snow and rock salt around the small can.
 Cover both cans with their plastic lids.
 Roll the can around on the floor for about 15 min.

6. What type of units are used in this recipe?

IMPERIAL UNITS

METRIC UNITS

7. a) How much vanilla extract and peppermint extract do you need in total?

- b) What is the ratio of whipping cream to sugar?

Write the ratio in lowest terms. _____

- c) What is the ratio of vanilla extract to peppermint extract? _____

Write the ratio in lowest terms. _____

- The recipe makes enough ice cream for 5 people.
8. By what factor does this recipe have to be increased to make enough ice cream for the whole class?

9. Calculate how much of each ingredient you need to make enough ice cream for the whole class. Record each amount in the table.

Ingredient	Amount in One Recipe	Amount Needed for Whole Class
Whipping cream	2 cups	
Sugar	$\frac{1}{2}$ cup	
Vanilla extract	$\frac{1}{2}$ tsp	
Peppermint extract	$\frac{1}{2}$ tsp	
Peppermint stick	1	

10. You want to make 1 batch of peppermint ice cream. State 2 personal references you could use to help you estimate the amount of 2 ingredients.

Check Your Understanding

When cooking, why is it sometimes helpful to write ratios in lowest terms?
