Keeping It Real Assessment Introduction

Keeping It Real Assessments have been designed to be as close to real life as possible to show the relationships between math and everyday life. They allow you to apply your learning of course content in unique ways. You can ask your teacher for clarification or to verify your thought processes. Ultimately, however, the work should be your own.

This course has four *Keeping It Real Assessments*, from which you **must choose two**.

Unit A – Budgeting for Fun
Unit B – Mathtracker
Unit C – Burger Shack
Unit D – Dream Room

You will be assessed on each concept, rather than on each individual question. Work related to each concept will be graded on a scale from 0 to 4, according to the criteria listed below. In addition, a maximum of **2 marks** will be awarded for the use of **proper units** throughout the entire assessment.

Concept Criteria	
0	No score is awarded because there is insufficient evidence of student performance based on the requirements of the task.
1	First step only was completed, or correct formula was written, but not used correctly, or a diagram was drawn, but no further work was appropriate, or an incorrect method/process was used.
2	Half of a solution is present, with a correct initial method/process, or major algebraic mistakes were made, or the incorrect information was used, or information was transferred incorrectly, or one part was correct, but another part was incorrect.
3	Most of the solution is correct, with the entire method/process being correct, but a calculation error, an algebraic error, or a calculator error was made.
4	Correct answers obtained with correct methods/processes.

Keeping It Real Assessment
Unit C
Burger Shack

Background

Your uncle is retiring from the Burger Shack business. He has decided to hand his Burger Shack over to you, which you graciously accept – you have always wanted to be your own boss. The grand reopening of the Burger Shack is in one month, and there many things to do.

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Complete the following tasks:

1. Renovate the Burger Shack
2. Order New Aprons
3. Order Supplies
4. Determine the Total Cost of the Reopening

Task 1: Renovate the Burger Shack

1. You need to order new table cloths for the **6 tables** you have outside.

   a. Each table is **183 cm** long. How long is each table, in **metres**?

   b. Fabric for the table cloths can be cut right from the roll and draped over the table. If the overhanging fabric measures 0.25 m on each end of every table, what length of fabric will be needed for the 6 table cloths? Round your answer to the nearest metre.

   c. You have decided to order the table cloth fabric from a local company that sells fabric by the yard. How many yards of fabric will you need to order? Round your answer to the nearest yard.
   Hint: You cannot buy part of a yard of fabric.
   1 m = 1.094 yd

   d. The table cloth fabric costs $8.20 per yard. How much will the fabric order cost?

2. You also need to paint the exterior of the Burger Shack.

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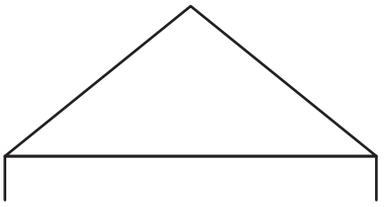
a. You have calculated that you will need 25 US gal of paint to cover the exterior of the building with two coats. How many litres of paint will you need to complete this job? Round your answer to one decimal place.

b. If each can of paint holds 18.5 L, how many cans of paint will you need to buy?

c. Each can of paint costs $169.00. How much will it cost to buy all of the paint required?

3. You have also decided to order two new signs for the Burger Shack. One of the signs will go on the front face of the building, and one will go on the side of the shack. The new signs will cost a total of $1 000.

   a. To hang your sign on the front of the building, you need to find the midpoint of the triangular roof line shown below. Locate the midpoint of the triangle, and explain what you did to find it.



   b. To hang your second sign on the side of the building, you need to find the midpoint of the rectangular wall shown below. Locate the midpoint of the rectangle, and explain what you did to find it.

Task 2: Order New Aprons

You have hired a new employee, named Tyler, to work at the Burger Shack. You will need to order a new apron for Tyler so he matches the other employees. There are two different sizes of aprons that you can order. One apron size is for people more than 185 cm tall, and the other apron size is for people who are less than 185 cm tall.

a. Tyler knows he is 5 feet 11 inches tall. How tall is Tyler, in inches?
1 ft = 12 inches

b. What is Tyler's height, in centimetres? Round your answer to the nearest whole number.
1 in = 2.54 cm

c. Which apron will you need to order for Tyler?

d. Just to be safe, you have decided to buy 2 extra aprons in addition to Tyler's apron. If each apron costs $17.00, how much will it cost for all 3 aprons?

Task 3: Order Supplies

1. After consulting with your uncle, you estimate you will need 360 hamburgers for the grand reopening.

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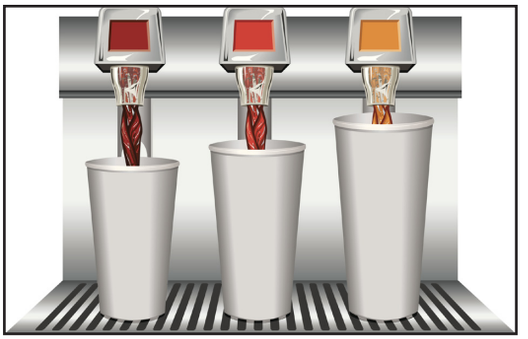
a. If each burger is made from 0.25 lbs of ground beef, how many pounds of ground beef should be ordered?

b. The butcher shop, where you order the ground beef, accepts orders in kilograms only. How many kilograms of ground beef must you order? Round your answer to one decimal place.

c. The ground beef costs $9.70/kg. What will the ground beef for the grand reopening cost?

2. You also need to order boxes of pop syrup to make pop in your dispenser.



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a. Each box of syrup contains 2.5 US gal of syrup. How many litres of syrup are in each box? Round your answer to one decimal place.

b. To make the pop, you must add 5 L of carbonated water to every 1 L of pop syrup. Determine the amount of water that would need to be added to the 9.5 L of pop syrup that comes in a single box. Round your answer to one decimal place.

c. What is the total volume of pop that can be made from a single box of pop syrup?
Hint: Take the total volume of water that you calculated in part b and add it to the volume of syrup that comes in a single box.

d. The plastic pop cups hold 710 mL of pop. Determine how many plastic cups of pop you can fill with one box of pop syrup.

   i) Convert the amount of pop made from one box of syrup from litres to millilitres.
   1 L = 1 000 mL

   ii) How many FULL plastic cups of pop can be filled?

e. You and your uncle have also estimated that you will need 6 boxes of pop syrup for the reopening and the first few days that follow. How many FULL cups of pop can be filled from 6 boxes of syrup?

f. If each box of pop syrup costs $45.98, how much will it cost to order all 6 boxes for the grand reopening?

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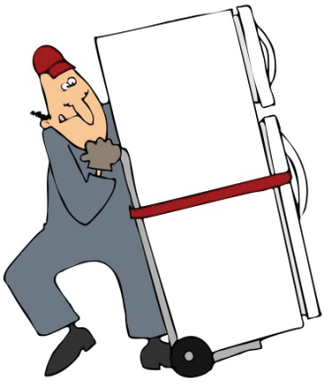
3. The refrigerator at the Burger Shack needs to be replaced. You need to purchase one that is 28 ft^3 or larger. After doing some research, you find a new one that is 830 dm^3. It costs $2 400.00.



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a. What is the capacity of the 830 dm^3 new refrigerator, in Litres?
Hint: 1 dm^3 = 1 L

b. What is the capacity of the new refrigerator, in cubic feet? Round your answer to one decimal place.
Hint: 1 ft^3 = 28.32 L

c. Is the new refrigerator large enough for the Burger Shack? Explain.

4. The food in the refrigerator needs to be stored at a temperature of $4^{\circ}C$. The new refrigerator only measures temperature in Fahrenheit. What temperature should you set your refrigerator at, in Fahrenheit, to make sure that it is at $4^{\circ}C$?

Task 4: Determine the Total Cost of the Reopening.

a. Fill in the table below.

Item	Cost
Fabric for Picnic Tables	
Paint	
Signs	$1 000.00
Aprons	
Ground Beef	
Pop Syrup	
Refrigerator	$2 400.00
Total Cost	

b. You have budgeted between $5 150 and $5 350 for the cost of the grand reopening. You must remain within budget.

Respond to the following if you are within budget: Identify any areas in this assessment that you had trouble with, but that you were able to eventually understand and/or correct. If you did not need to make corrections, state that no corrections were needed.

Respond to the following if you are outside the budget: Identify the areas of this assessment that you struggled with and that you believe are contributing to your being outside of the budget.

Grading Scheme for Keeping It Real Assessments

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Keeping It Real C

Concept	0-4 rating	comments
Calculating Metric Length Conversion		
Converting Imperial to Metric – Length		
Converting Metric to Imperial – Length		
Calculating Imperial Length Conversions		
Converting Imperial to Metric – Volume/Capacity		
Determine a Strategy to solve for Midpoint		
Converting Imperial to Metric – Mass		
Converting Metric to Metric – Volume/Capacity		
Solve for Number of Units given a Ratio		
Converting Metric to Imperial – Volume/Capacity		
Temperature Conversion		
Calculating Cost		
Error Correction		
Use of Proper Units	**/2**	
Total Marks	**/54**	