#5, 6 – add currency conversion sheet

Unit 1: Proportional Reasoning Review

Key

Last Name _____ First Name _____ Period _____

Teacher Feedback:

Learning Goals:	Incomplete	Beginning	Progressing	Achieving	Excelling
I can solve problems involving rates and ratios					
I can convert between different currencies					
I can calculate unit prices and make comparisons					
I can calculate the final price of an item after mark-up and tax					
I can calculate the sale price of discounted items					

Learning Goal 1 – Introduction to Proportional Reasoning

I can solve problems involving rates and ratios

Corrections:

1. Solve the following proportions:

$\frac{5}{12} = \frac{x}{7}$ $\qquad$ $\frac{16.5\ km}{2\ hours} = \frac{50\ km}{x}$

$5 \times 7 = 12 \times x$ $\qquad$ $16.5x = 50 \times 2$

$\frac{35}{12} = \frac{12x}{12}$ $\qquad$ $\frac{16.5x}{16.5} = \frac{100}{16.5}$

$2.9 = x$ $\qquad$ $x = 6.1$

2. Cassandra's lemonade recipe calls for 3 parts water to 1 part lemon juice. Total = 4

a) If she uses 5 cups of lemon juice, how much water should she use?

$\frac{3\ H_2O}{1\ lemon} = \frac{x\ H_2O}{5\ lemon}$ $\qquad$ $x = 3 \times 5$

$x = 15$ cups of water

b) If she wants to make 36 cups of lemonade **in total**, how much lemon juice will she need?

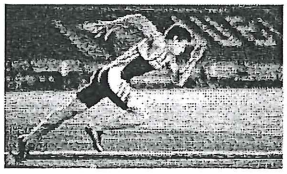
$\frac{x\ lemon}{36\ Total} = \frac{1\ lemon}{4\ Total}$

$\frac{36}{4} = \frac{4x}{4}$

$9 = x$

9 cups lemon

3. a) Braydan can run 4 laps of the track in 18 minutes. How long will it take him to run 10 laps?



$\frac{4\ laps}{18\ min} = \frac{10\ laps}{x\ min}$ $\qquad$ $4x = 18 \times 10$

$4x = 180$

$x = 45$ minutes

b) What assumption are you making in part (a)?

Runner will run at steady pace and not slow down

Learning Goal 2 – Currency Exchange

I can convert between different currencies using proportional reasoning

Corrections:

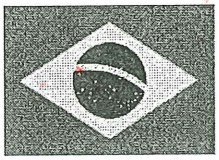
4. 1 Chinese Yuan is worth about $0.15 CAD. You go to China and a hotel costs 625 Yuan. How much does that cost in Canadian dollars?

$\frac{1 \text{ Yuan}}{\$0.15 \text{ CAD}} = \frac{625 \text{ Yuan}}{x \text{ CAD}}$

$\therefore x = 625 \times 0.15$

$= \$93.75$ CANADIAN DOLLARS

5. You have just come back from Brazil with some extra Reals. How much will the bank give you in Canadian dollars for 1500 Brazilian Reals?



Buying or selling rate? (Circle one)

Bank Bank

0.5349 0.697

$\frac{1 \text{ Real}}{0.5349} = \frac{1500 \text{ Real}}{x \text{ CAD}}$

$\therefore x = 1500 \times 0.5349$

$= \$806.85$ CANADIAN

6. You are going on a vacation to Hong Kong. How many Hong Kong dollars would the bank give you for $1200 Canadian?

Buying or selling rate? (Circle one)

0.128451 0.133451

$\frac{1 \text{ HK dollars}}{\$0.133451 \text{ CAD}} = \frac{x \text{ HK Dollars}}{\$1200 \text{ CAD}}$

$\frac{1x}{0.133451} = \frac{1200}{0.133451}$

$\$8992.06 = x$

Hong Kong Dollars.

Learning Goal 3 – Unit Price

I can calculate unit prices to make comparisons

84¢/lb $1.18/lb

7. Which tomato sauce is a better deal on cereal? Explain how you know without a calculation.

Better deal.
Less per ounce
59¢ < 79¢

8. What is a better deal? Show how you know.

   - 12 cans of soda for $10.68
   - 8 cans of soda for $6.72

$\frac{\$10.68}{12\ cans} = \$0.89/can$

$\frac{\$6.72}{8\ cans} = \$0.84/can$

Better deal

Corrections:

Learning Goal 4 – Mark-up and Sales Tax

I can calculate the final price of an item after mark-up and tax

Corrections:

9. The wholesale price for one pair of jeans is $20.00. What will the jeans cost after **a mark-up** of 112%?

$\frac{112}{100} = 1.12$

Profit/Markup = $\$20 \times 1.12$

$= \$22.40$

Sale Price of Jeans = Wholesale Price + Markup/Profit

$= 20 + 22.40$

$= \$42.40$

10. A chicken burger costs $14.95 at a restaurant. How much will it cost after taxes (5% GST and 7% PST)?

12%

$\frac{12}{100} = 0.12$

Tax = $\$14.95 \times 0.12$

$= \$1.79$

Total Cost = $\$14.95 + \$1.79$

$= \$16.74$

Learning Goal 5 – Discount

I can calculate the sale price of discounted items

Corrections:

11. A jacket is regularly priced at $147.95. It is on sale for **75% off**! How much is the jacket?

75/100 = 0.75

$147.95 × 0.75

= $110.96 ← OFF

147.95 − 110.96

= 36.99

Sale Price

12. You need to stock up for the winter and buy some Christmas presents. There is a sale on scarves: buy 3 get 1 free. The scarves are regularly $15 each. How much do you save if you buy 12 scarves?

3 + 1
scarve free
= 4 Scarve

12 scarves / 4 = 3 free scarves

there 3 free scarves

3 free scarves × $15

= $45