1.1 Proportional Reasoning Day 1 Additional Notes (To Accompany Pages 9 – 25 in Workbook)

Definition of Ratio:

Ex #1: a) State two examples of Ratio's

b) State two non examples of Ratio's

Why are they non-examples?

Definition of Rate:

Ex #2: a) State two examples of Rate's

b) State two non examples of Rate's

Why are they non-examples?

Basic Review of Fractions: Refer to notes on Page 10 of workbook, Next Example: Build your skills #1 p11

Mathematical Definition of Proportion:c

Everyday Definition of Proportional:

Investigation:

a) In each of the following boxes, write another fraction that is proportional to the first

$\frac{1}{2} = \_\_\_\_$ $\frac{2}{3} = \_\_\_\_$ $\frac{7}{4} = \_\_\_\_$ $\frac{15}{20} = \_\_\_\_$

b) First Interesting Thing About Proportions: How many Proportions are there in each box???

c) Second Interesting Thing About Proportions: How many Equalities are there in each box???

Ex #3: Can you use your common logic to find out what the question mark must be? No Calculator!

$\frac{1}{2} = \frac{?}{18}$ $\frac{2}{3} = \frac{14}{?}$ $\frac{7}{4} = \frac{?}{12}$ $\frac{15}{20} = \frac{?}{5}$ $\frac{5}{8} = \frac{?}{4}$

- Are all your answers whole numbers?

Ex #4: Can you use your common logic to find out what the question mark must be?

$\frac{5}{21} = \frac{?}{357}$ $\frac{13}{9} = \frac{210}{x}$

- Why are these more difficult?
- Can you predict which questions will have answers that are whole numbers and which ones will not?
- Do the x and the ? mean the same thing?

Steps to Solving Proportions Using Algebra (Carignan's method…):

Ex #5: Solve the following proportions

a) $\frac{7}{8} = \frac{x}{14}$

b) $\frac{275km}{3h} = \frac{450km}{x}$

c) $\frac{275km}{3h} = \frac{x}{1h}$

Ex #6: Ms. C is making up a math test. She has chosen to add 7 word problems, 3 true/false, 5 multiple choice and 9 short answer questions.

a) What is the ratio of word problems to multiple choice?

b) What is the ratio of true/false to short answer?

c) What is the ratio of multiple choice to other questions?

Ex #7: In order to make the perfect London Fog tea, you need a ratio of milk to water of 5 to 3. If I have 55 ml of milk, set up and solve a proportion that will determine the correct amount of water needed.

Next Example: Workbook P 13 Build Your Skills #2

1.1 Assignment #1: Workbook P 21-23 # 1-3

Delta Math Assignment: WAM 10 1.1 Pre- learned Skills with Fractions (Formative)

1.1 Day 2 Proportional Reasoning Additional Notes (To Accompany Pages 9 – 25 in Workbook)

Ex #1: The ratio of sugar to flour in cookies is 2:5

a) If I use 7 cups of sugar, how much flour will I use?

b) If I make a batch of cookies and the flour and sugar together is 40 cups, how much sugar is in it?

Ex #2: If you have a job where you earn $150 in 12 hours, set up and solve a proportion that will calculate how much you will earn in 40 hours

Next Examples: Workbook P 16-17 Build Your Skills #3, 5, 6, 7 & P 18-21 #10 – 16 on P 18-21

1.1 Assignment #2: Workbook P 24-25 # 4-9

Delta Math Assignment: WAM 10 1.1 Ratio & Proportion (Summative)

1.2 Unit Rate Additional Notes (To Accompany Pages 26 - 35 in Workbook)

Definition of Unit Rate:

Where do we see examples of Unit Rate in real life?

Ex #1: Four rolls of toilet paper is $4.68. Find the unit rate.

Should Unit Rate be your only consideration when purchasing?

Next Examples: Workbook P 27 – 31 Build your Skills #2, 3, 5 - 9

1.2 Assignment: Workbook P 32-36 # 1-8

Delta Math Assignment: WAM 10 1.2 Unit Rate (Summative)

WAM 10 1.2 Unit Rate

1.3 Setting a Price (To Accompany Pages 36 - 48 in Workbook)

Definition of Percent:

Review Examples: Workbook P 37 – 41 Build your Skills #1-3

Go over Notes on bottom of p 41 of Workbook

Next Examples: Workbook P 42 – 46 Build your Skills #4 - 13

1.3 Assignment: Workbook P 46 – 48 # 1- 6

1.4 Sale Prices (To Accompany Pages 50 – 58 in Workbook)

Next Examples: Workbook P 50 – 55 Build your Skills #1 - 12

1.4 Assignment: Workbook P 56 – 58 # 1- 7

Delta Math Assignment: WAM 1.3 & 1.4 Sale Price (Summative)

1.5 Currency Exchange Rates (To Accompany Pages 50 – 69 in Workbook)

Currency - the money systems that a country or group of countries use

Exchange rate

- the price of one country's currency in terms of another country's currency
- Currency can be exchanged at banks, some businesses, currency exchange companies.
- When exchanging currency, a service fee will be charged.

Promotions - an activity to attract customers (eg) coupons, sales, reward cards, not taxes

Sale - a discounted price on an item, usually a percentage

Sales Tax - added onto items even if they are on sale.

Exchange rates are set at a buying rate and a selling rate and will fluctuate daily.
https://www.bankofcanada.ca/rates/exchange/daily-exchange-rates/

Selling rate - the rate at which money is sold to customers
(eg) you purchase American money from your bank before you go on holidays to Disney World.
https://www.tdcommercialbanking.com/rates/index.jsp

Buying rate - the rate at which money is bought from customers
(eg) when you return home from Disney World you sell your American money back to the bank.

The buying rate is usually set lower than the selling rate
(eg) you pay more to purchase American money than you will get back when you return it.

Next Examples: Workbook P 60 – 66 Build your Skills #1 - 13

1.5 Assignment: Workbook P 67 – 69 # 1- 7