Name: _____

Date: _____ Block: _____

Proportions Review Worksheet

Mrs. van der Vossen   Math 8

Part 1: Write the following ratios using **<u>ratio</u>** notation. Put answers in **<u>lowest terms</u>** if possible.

1. What is the ratio of gold to blue if a bag contains 6 gold marbles and 12 blue marbles?	2. A fish tank has 33 silver fish and 30 black fish. What is the ratio of black to silver?
3. What is the ratio of green to red to total if a bag contains 5 red marbles and 13 green marbles?	4. A class has 22 student with braces and 8 without. What is the ratio of total to no braces?

Part 2: Write the following ratios in **<u>fraction</u>** form. Put answers in **<u>lowest terms</u>** if possible. (1 mark each)

1. A bag has 15 pencils and 3 pens. Compare pens to pencils.	2. A track club has 58 students. 24 of them are under 10 years old. Compare the number of members over 10 years old to the rest.
3. You ate 18 jelly belly's and 16 fuzzy peaches. Compare fuzzy peaches to jelly belly's.	4. The parking lot had a total of 60 vehicles, 42 were trucks. Compare trucks to the remaining vehicles.

Part 3: Determine the **<u>unit rate</u>** (or unit price) for:

1. Beau runs $8km$ in $1.1\ hours$. *(to the nearest hundredth)*	2. Kyle earns $\$204.75$ after babysitting for $35hr$.

3. Pepsi costs $7.26 for a package containing 15 cans.	4. 36 hamburger buns cost $10.44
5. You travel $362 km$ in $25 hr$.	6. 14 erasers cost $16.66

Part 4: Use a proportion to solve the following.

1. There are 91 apples in 7 cases. How many apples would be found in 3 cases?	2. In your garden you can grow 4 tomato plants in $0.8m^2$. How many plants would fit in $7m^2$?
3. There are 125 players on 5 teams. How many players are on 7 teams?	4. If 18 eggs cost $6, then how much would 33 eggs cost?

Part 5: Determine the missing values.

1. $\frac{2}{5} = \frac{\blacksquare}{15}$	2. $\frac{36}{18} = \frac{6}{\blacksquare}$

3. $\dfrac{\$168}{8hr} = \dfrac{\blacksquare}{1hr}$	4. $\dfrac{60km}{3hr} = \dfrac{\blacksquare}{8hr}$
5. $\dfrac{3}{4} = \dfrac{24}{\blacksquare} = \dfrac{\blacksquare}{16}$	6. $\dfrac{144}{\blacksquare} = \dfrac{48}{6}$

Part 6: Solve the following word problems and show your thinking process by writing everything down – Show your work and remember your units!

1. Last night, over a $12\ hour$ period, $60cm$ of snow fell. If it keeps snowing at the same rate, how long will it take for $100cm$ of snow to fall?

2. Use words to **explain** the difference between a "ratio" and a "rate".

The last time I filled my car, I paid $\$54.00$ for $60\ L$.
a) What is the unit rate?

b) How much would $30\ L$ cost?

Use a proportion to solve the following situation.

Walter makes his own salad dressing using oil and vinegar. His recipe calls for 60mL of olive oil and 180mL of vinegar. If he wants to use all 333mL of olive oil he has, how much vinegar will he need?

3. Jaxon is shopping for a turkey. The butcher shop on Main Street has a special on this week and sells turkey for $4.79/330g. Save-On-Foods sells ground turkey for $5.49/350g.

a. What is the unit rate for each store?

b. What is the cost per 100g for each store?

c. Which one is the better buy?