

Vocabulary (5 pts) Match the Vocabulary word with the appropriate definition

1. <u>E</u>	Proportion	A.	The cost of one unit
2. <u>A</u>	Unit Price	B.	The ratio to one unit for a given quantity
3. <u>D</u>	Rate	C.	A comparison of two quantities by division
4. <u>B</u>	Unit Rate	D.	A comparison of two quantities measured in different units
5. <u>C</u>	Ratio	E.	An equation stating two ratios are equal
		F.	The number of units for 1 unit of money

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6. (6 pts) Write the same ratio of 3 cats and 5 dogs in 3 different ways	7. (6 pts) Write three equal ratios for a ratio of 7:4
A) <u>3:5</u> B) <u>3&5</u>	A) <u>3.5:2</u> B) <u>14:8</u>
C) <u>$\frac{3}{5}$</u>	C) <u>21:12</u> <u>$\frac{7}{4} = -$</u>

12

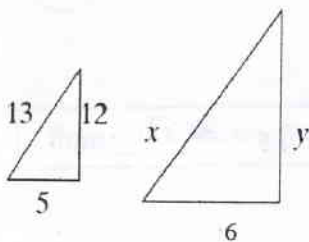
Write and Solve a proportion for the following (10 pts each):

8. Anthony spent \$39.00 on a 40 pound bag of birdseed. What was the <u>unit price</u> ? $\frac{\$39}{40 \text{ lb}} = \frac{\$x}{1 \text{ lb}}$ $\Rightarrow \frac{\$9.75}{1 \text{ lb}}$	9. Mark eats $7\frac{1}{2}$ ounces of grilled chicken at 58 calories per ounce. What's the total calories consumed? $\frac{58 \text{ cal}}{1 \text{ oz}} = \frac{x \text{ cal}}{7.5 \text{ oz}}$ $\Rightarrow 435 \text{ calories}$
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10. (12 pts) These triangles are similar. Write and solve two proportions to find the values of x and y.

12



$\frac{5}{6} = \frac{13}{x}$
 $x = 15.6$

$\frac{5}{6} = \frac{12}{y}$

$X = 15.6$
 $Y = 14.4$

go + vocab

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Solve the proportion for the variable

<p>11. $\frac{15.2}{2.5} = \frac{k}{3}$ $2.5k = 3 \times 15.2$</p> <p>$k = 18.24$</p>	<p>12. $\frac{x}{39} = \frac{7}{13}$</p> <p>$x = 21$</p>
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Given a map scale is 2 cm:21 km find the distance requested.

<p>13. What is the map distance for an actual distance of 94.5 km?</p> <p>$\frac{2 \text{ cm}}{21 \text{ km}} = \frac{x \text{ cm}}{94.5 \text{ km}}$</p> <p>$x = 9 \text{ cm}$</p>	<p>14. What is the actual distance for a map distance of 1.4 cm?</p> <p>$\frac{2 \text{ cm}}{21 \text{ km}} = \frac{1.4 \text{ cm}}{x \text{ km}}$</p> <p>$x = 14.7 \text{ km}$</p>
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15. **Ratio Rush** As always, be sure to show your problem set-up / solution for full credit. 12 pts total)

In Klem's parking lot the ratio of cars to trucks is always 7:11.

<p>A. (8 pts) At one time on Tuesday, Ms Pahl counted 77 cars. How many trucks were parked at Klem's?</p> <p>$\frac{7 \text{ cars}}{11 \text{ Trucks}} = \frac{77 \text{ cars}}{x \text{ Trucks}}$</p> <p>$x = 121 \text{ Trucks}$</p>	<p>B. On Wednesday, Ms Pahl counted 198 cars ^{vehicles}. How many trucks were parked at Klem's?</p> <p>$\frac{7 \text{ cars}}{11 \text{ Trucks}} = \frac{x \text{ trucks}}{198 \text{ vehicles}}$</p> <p>$x = 121 \text{ Trucks}$</p>
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16. (8 pts) Convert 44 feet/second to _____ miles/hour

7

$$44 \frac{\text{ft}}{\text{sec}} \times \frac{1 \text{ mi}}{5280 \text{ ft}} \times \frac{60 \text{ sec}}{1 \text{ min}} \times \frac{60 \text{ min}}{1 \text{ hr}} = 30 \frac{\text{mi}}{\text{hr}}$$

or $\frac{3000 \text{ sec}}{\text{hr}}$

44 fps = 30 mph

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