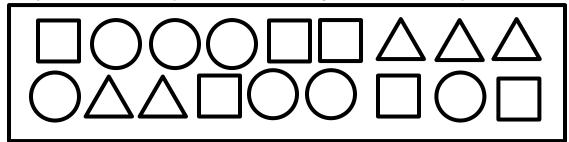**Unit 8: Proportional Relationships**
Review Worksheet ~Lessons 1-6

Use the table to write each ration ***three different ways***.

1. squares to trapezoids
2. 3-sided shapes to 4-sided shapes
3. all shapes to rectangles

Shapes	
Squares	8
Triangles	20
Rectangles	4
Trapezoids	12

4. Write ***three equivalent*** ratios to compare the number of circles to the number of triangles in the box.
5. Write ***three equivalent*** ratios to compare the number of triangles with the number squares and circles.

Use the table to write each ratio as a fraction in ***lowest terms*** (simplest form).

6. ovals to octagons
7. pentagons to all shapes
8. all shapes to rhombuses

Shapes	
Ovals	12
Rhombuses	4
Pentagons	16
Octagons	6

9. Sydney earns $68.00 for 8 hours of work. Jolene earns $42.55 for 5 hours of work. Who has the better hourly rate of pay?

10. There are 63 students on a gymnastics team. The ratio of sixth graders to seventh graders is 4:5. How many sixth graders are on the team? How many seventh graders are on the team?

11. A 16 ounce box of Chippy Cookies costs $3.68. A 22 ounce box of Chippy Cookies costs $5.28. Which is the better buy?

12. Tools for Us sells door bells. The table below shows the price of door bells. Predict how much a customer will pay for 4 door bells. Predict how much a customer will pay for 18 door bells.

Number of Door Bells	5	10	15	20	25
Cost ($)	7.70	15.40	23.10	30.80	38.50

13. Trisha runs laps every day during track and field practice. The table shows how long it takes her run different numbers of laps. Predict how long it will take Trisha to run 5 laps. Predict how long it will take Trisha to run 13 laps.

Number of Laps	2	4	6	8	10	12	14	16
Time (min)	.62	1.24	1.86	2.48	3.10	3.72	4.34	4.96

Copy each table. Complete each table by finding the missing ratios.

14.

2	5		8	12	
15		45	60		135

15.

4	9		15	21	
	13.5	16.5	22.5		37.5

16. A recipe calls for 3 cups of walnuts and 5 cups of chocolate chips. If the recipe is reduced, how many cups of walnuts should be used with 2½ cups of chocolate chips? Write and solve a proportion. Show all work.

Find the value of **x** in each proportion. Show all work.

17. $\dfrac{x}{16} = \dfrac{5}{20}$ 18. $\dfrac{6}{8} = \dfrac{x}{36}$

19. $\dfrac{4}{x} = \dfrac{16}{40}$ 20. $\dfrac{10}{12} = \dfrac{25}{x}$

Create a coordinate plane (or use a ready-made one).
21. Graph the coordinate **(2, 2.5)**, and the label the point **A**.
22. Starting at point **A**, move **2** units to the right and **3** units up. Label this point **B**.
23. What are the coordinates of point **B**?
24. Graph the coordinates **(6, 2.5)**, and the label the point **C**.
25. Starting at point **C**, move **1** unit to the left and **5** units up. Label this point **D**.
26. What are the coordinates of point **D**?

27. Copy and complete the table by filling in the missing percents, decimals, and fractions. Write the fraction in simplest form. If needed, round decimals to the nearest hundredth.

Percent	Decimal	Fraction
18%		
	.24	
		$\dfrac{5}{6}$
65%		
	1.03	
		$\dfrac{25}{36}$
134%		
	.005	
		$\dfrac{45}{8}$
0.06%		
	3	
		$5\dfrac{3}{4}$