Unit 3 Study Guide

## In Mr. Ortega's Geometry class, there are 12 boys and 16 girls. Write the following ratios:

1. Boys to Girls
2. Girls to Students
3. Girls to Boys
4. In the United States House of

Representatives, there are 435 seats. Of those, 70 are occupied by women. Write the ratio of men to women in the US House of Representatives.
5. What is $35 \%$ of 60 ?
6. What percent of 18 is 4 ?

Solve the following proportions
7. $\frac{4}{10}=\frac{k}{65}$
8. $\frac{3}{x}=\frac{4}{12}$
9. $\frac{2}{10}=\frac{5}{x}$
10. The scale of a map of downtown Dallas is 1.5 cm : 300 m . If the distance between Union Station and the Dallas Public Library is 6 cm , what is the actual distance?
11. There are 140 milligrams of caffeine in a 12 -ounce cup of coffee. How many milligrams of caffeine are in 3 ounces of the same coffee?
12. A school has 34 teachers and 952 students. How many students per teacher are there?
13. The Dallas Cowboys won 10 of their 16 regular season games. What is the ratio of wins to losses?
14. A recipe for salad dressing calls for $1 \frac{1}{4}$ cups of oil for every $\frac{1}{2}$ cup of vinegar. How much cups of oil will you need for 1 cup of vinegar?

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15. Fill in the ratio tables below.

| Tables | 3 | 7 | 12 |
| :--- | :--- | :--- | :--- |
| Guests | 24 |  |  |


| Seonds |  | 12 | 60 |
| :--- | :--- | :--- | :--- |
| Push-Ups | 7 | 21 |  |

16. A water dispenser filled a 24 -ounce water bottle in 15 seconds. At what rate was the dispenser filling the bottle?
17. My water bottle can hold 98 fluid ounces of liquid. How many cups of liquid is this? ( 16 ounces $=2$ cups)

Name $\qquad$
19. The prices of three bottle s of ketchup are given below. Which bottle costs the least per ounce?

| Bottle | Size | Price |
| :---: | :---: | :---: |
| A | $25-\mathrm{oz}$ | $\$ 4.00$ |
| B | $21-\mathrm{oz}$ | $\$ 3.15$ |
| C | $16-\mathrm{oz}$ | $\$ 2.88$ |

20. Determine the constant of proportionality from the equation below.

$$
y=0.7 x
$$

21. Determine the constant of proportionality from the table below.

| $\#$ of <br> Mules | Bales of <br> Hay |
| :---: | :---: |
| 2 | 1 |
| 4 | 2 |
| 6 | 3 |
| 8 | 4 |
| 10 | 5 | Mia sells 5 chocolate chip cookies for every 2 sugar 18. cookies. Create a ratio table and graph to show this relationship.


| Chocolate <br> Chip Cookies | Sugar <br> Cookies |
| :--- | :---: |
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|  |  |



