

Name: _____

Date: _____ American Math, Section: _____

Homework #8 – Ratios and rates

1) There are 50 white stars, 7 red stripes, and 6 white stripes on the U.S. flag. What is the relationship between stars and red stripes? Select a ratio that could be used to describe the relationship. Circle all that apply.

- a. 50:7
- b. 7:6
- c. $\frac{7}{50}$
- d. 13:50
- e. 6 to 50
- f. 50 to 7
- g. 50 to 13

2) A traffic signal has 1 red, 1 yellow, and 1 green light. Read each relationship. Can the ration 1 to 3 be used to describe the relationship? Select Yes or No.

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|--|-----|----|
| a. Number of lights on a traffic signal | Yes | No |
| b. Red lights to the total number of lights | Yes | No |
| c. Lights that are not red to the total number of lights | Yes | No |
| d. Lights that are not yellow or green to total number of lights | Yes | No |

3) Look at each ratio. Is it equivalent to 36:20? Select True or False.

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|--------------------|------|-------|
| a. 9 to 5 | True | False |
| b. $\frac{10}{18}$ | True | False |
| c. 18:10 | True | False |
| d. 72:56 | True | False |

4) Cassie drives 165 miles in 3 hours. Write the numbers that make the rates below equivalent to the rate 165 miles to 3 hours.

- a. Cassie drives _____ miles per hour.
- b. Cassie drives _____ miles in 5 hours.

5) At Awesome Bakery Shop, the ratio of chocolate cupcakes to vanilla cupcakes is 3:4. There are 56 cupcakes in total. Use a tape diagram (the method used in class) to find the answers to the following:

- a. How many chocolate cupcakes are there? _____
- b. How many vanilla cupcakes are there? _____
- c. How many more vanilla cupcakes than chcolate cupcakes? _____