

Name _____ Date _____

**Skills Maintenance****Variables and Proportions****Activity 1**

Solve the percent problems by filling in the values of the variables.

1. Micah found a great sale on his favorite soccer cleats. They are 75% off. If the original cost is \$150, what is the discount? _____
2. Sheila bought \$140 worth of clothing at a store in a state where the sales tax is 6%. How much tax will she pay on her purchase? _____
3. If you tip 15%, how much is the tip for a meal that costs \$58.89? _____
4. Adrienne has been saving money in an account since her 1st birthday. On her 16th birthday, she realized she had \$2,500 in the account. If the interest rate is 5%, how much interest will she earn? _____

Name _____ Date _____

 **Apply Skills**
Simplifying Ratios**Activity 1**

Tell if the ratio can be simplified. Circle Y for yes or N for no.

1. Ratio of boys to girls is 12:13. Y or N
2. $\frac{\text{Dogs}}{\text{Cats}} = \frac{2}{4}$ Y or N
3. Ratio of hearts to diamonds is 6:9. Y or N
4. $\frac{\text{Milk}}{\text{Mix}} = \frac{4 \text{ cups}}{5 \text{ cups}}$ Y or N
5. Ratio of circle to squares is 8:12. Y or N
6. Ratio of stars to moons is 2:3. Y or N

Name _____ Date _____

Activity 2

Simplify each ratio. List the common factors, then tell what the GCF is. Write the equation that shows the original ratio, simplified fraction, and whole number you divided by.

1. $\frac{\text{Completed Passes}}{\text{Interceptions}} = \frac{12}{8}$

Factors of 12 _____

Factors of 8 _____

Greatest common factor _____

$$\frac{12}{8} =$$

Simplified ratio _____

2. $\frac{\text{Hours}}{\text{Miles}} = \frac{4}{16}$

Factors of 4 _____

Factors of 16 _____

Greatest common factor _____

$$\frac{4}{16} =$$

Simplified ratio _____

3. $\frac{\text{boys}}{\text{girls}} = \frac{12}{14}$

Factors of 12 _____

Factors of 14 _____

Greatest common factor _____

$$\frac{12}{14} =$$

Simplified ratio _____

4. $\frac{\text{Inches}}{\text{Miles}} = \frac{5}{25}$

Factors of 5 _____

Factors of 25 _____

Greatest common factor _____

$$\frac{5}{25} =$$

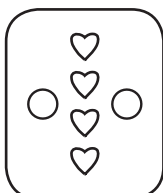
Simplified ratio _____

Name _____ Date _____

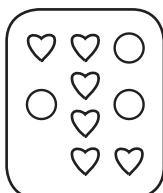
 **Problem-Solving Activity**
Complex Pattern Cards

Find the proportional relationships in the pattern cards. Remember, the multiplication patterns may not be obvious. You may have to reduce the ratios in order to find the proportional relationships. Four of the six pattern cards are proportional. Circle the proportional cards.

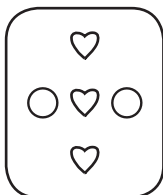
Unit 2



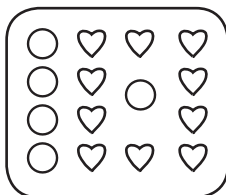
Card 1



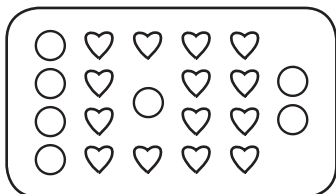
Card 2



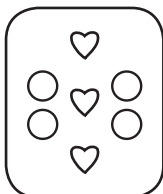
Card 3



Card 4



Card 5



Card 6

What is the reduced ratio that helped you find the proportional cards? _____

 **Reinforce Understanding**
Use the mBook *Study Guide* to review lesson concepts.