RATIOS, RATES, UNIT RATES AND RATIO TABLES STUDY GUIDE

Name:_____   Period:_____ Date:_____

Reduce !!

I.   Write each scenario as a ratio using labels. Remember to write each ratio in simplest form.

Pay attention to how the ratio is asked for!

a) Tyson's math class has 12 boys and 8 girls. Write the ratio of girls to boys.

$$\frac{8 \text{ girls} \div 4}{12 \text{ boys} \div 4} = \frac{2 \text{ girls}}{3 \text{ boys}}$$

b) At a bake sale, 15 cookies and 40 brownies were sold. Write the ratio of cookies sold to brownies sold.

c) The jewelry store is having a sale on 25 emerald rings and 15 ruby rings. Write the ratio of ruby rings to emerald rings.

d) In a bouquet of flowers, there are 6 roses, 5 carnations, 3 lilies, and 7 daisies. Write the ratio of roses to total flowers in the bouquet.

e) Of the 24 sandwiches on the table, 9 of them were burgers. Write the ratio of burgers to total sandwiches.

Reduce! Reduce!   ## Ratios and Rates

Express each ratio as a fraction in the simplest form.

1) 48 cups to 54 cups $\frac{48 \text{ cups} \div 6}{54 \text{ cups} \div 6} = \frac{8 \text{ cups}}{9 \text{ cups}}$ 2) 25 blue cars out of 40 cars _____

3) 12 quarts to 16 quarts _____   4) 12 gallons to 14 gallons _____

5) 21 dimes to 28 dimes _____   6) 5 pennies to 45 pennies _____

7) 7 beetles out of 56 insects _____   8) 30 miles out of 36 miles _____

II. Write each phrase as a Rate (first) and then determine Unit Rate (second).
   ** Remember Unit Rate always has a denominator of 1 **

   a) $42 for 7 books

   <u>Rate</u>   <u>Unit Rate</u>
   $\dfrac{\$42}{7\ books}$ $\xrightarrow[\div 7]{\div 7}$ = $\dfrac{\$6}{1\ book}$

   b) $6 for 8 packs of gum

   c) $216 for 18 hours of work

   d) 120 miles in 8 weeks

   e) 79.8 miles on 3 gallons of gas

III. Use Rates & Unit Rates to determine which is the better deal. Circle your answer !!
   ** Remember to round to the nearest hundredth if you have a decimal **

   *Set up the <u>Rate</u> for each   *Determine   <u>Rate</u>   <u>Unit Rate</u>
   *Set up <u>Unit Rate</u> for each   which has better

   a) $12 for 3 paperback books; $28 for 7 paperback books
      $\dfrac{\$12}{3\ books}$ $\xrightarrow[\div 3]{\div 3}$ = $\dfrac{\$4}{1\ book}$

   b) 25 gumballs for $3.50; 30 gumballs for $4.50
      $\dfrac{\$28}{7\ books}$ $\xrightarrow[\div 7]{\div 7}$ = $\dfrac{\$4}{1\ book}$

      Ha! They sell at the same rate!

   c) 96 words typed in 3 minutes; 160 words typed in 5 minutes

   d) $3 for 6 bagels; $9 for 24 bagels

   e) 288 miles on 12 gallons of fuel; 240 miles on 10 gallons of fuel

   f) $22 for 2 new-release CDs; $40 for 4 new-release CDs

   g) $24 saved after 3 weeks; $52 saved after 7 weeks

   h) 60 pages read in 3 days; 90 pages in 6 days