Ratio & Unit Rate Review

Identify the choice that best completes the statement or answers the question.

1. Jon's summer baseball league has 36 thirteen-year-olds and 48 fourteen-year-olds. Write the ratio of thirteen-year-olds to fourteen-year-olds in all three forms.
   a. $\frac{3}{4}$, 3 to 4, 3:4
   b. $\frac{4}{7}$, 4 to 7, 4:7
   c. $\frac{4}{3}$, 4 to 3, 4:3
   d. $\frac{3}{7}$, 3 to 7, 3:7

2. In the last three years, Frederico's basketball team won 30 more games than they lost. If they won 130 games, what was the ratio of wins to losses? Write the ratio in all three forms.
   a. $\frac{13}{10}$, 13 to 10, 13:10
   b. $\frac{3}{13}$, 3 to 13, 3:13
   c. $\frac{13}{16}$, 13 to 16, 13:16
   d. $\frac{13}{3}$, 13 to 3, 13:3

3. At a conference, there are 121 math teachers and 11 science teachers. Write the ratio of math teachers to science teachers in simplest form.
   a. 11 to 121
   b. 121 to 11
   c. 11 to 1
   d. 1 to 11

4. Larry took 22 minutes to do 13 math problems. Mary took 24 minutes to do 12 math problems. Which student did more problems per minute?
   a. Larry
   b. Mary

5. Jeremy can jog $1\frac{1}{3}$ miles in $\frac{1}{4}$ hour. Write a complex fraction. Then compute his average speed in miles per hour.
   a. $\frac{\frac{3}{2}miles}{\frac{1}{4}hour} = 6$ miles per hour
   b. $\frac{\frac{3}{4}miles}{\frac{1}{4}hour} = 3\frac{1}{3}$ miles per hour
   c. $\frac{\frac{4}{3}miles}{\frac{1}{4}hour} = 5\frac{1}{3}$ miles per hour

6. You can get 640 calories from eating 8 apples. How many calories can you get from eating 1 apple?
   a. 80 calories per apple
   b. 83 calories per apple
   c. 82 calories per apple
   d. 81 calories per apple

7. Ignacio is going on vacation. He needs to drive 579 miles in 8 hours. What is his average speed in miles per hour?
   a. 63 miles per hour
   b. 65 miles per hour
   c. 67 miles per hour
   d. 69 miles per hour

8. Determine whether the ratios $\frac{8}{12}$ and $\frac{10}{18}$ are proportional.
   a. not proportional
   b. proportional

9. Determine whether the ratios $\frac{5}{6}$ and $\frac{9}{12}$ are proportional.
   a. proportional
   b. not proportional

10. Find a ratio equivalent to $\frac{8}{3}$. Then, use the ratios to write a proportion.
    a. $\frac{17}{6}$
       $\frac{8}{3} = \frac{17}{6}$
    b. $\frac{12}{32}$
       $\frac{8}{3} = \frac{12}{32}$
    c. $\frac{32}{12}$
       $\frac{8}{3} = \frac{32}{12}$
    d. $\frac{17}{12}$
       $\frac{8}{3} = \frac{17}{12}$

Name: _____ *M7.RP.1* - ***Unit Rate/Complex Fractions***

Classify each rate. Write <u>unit rate</u> or <u>not a unit rate</u>.

(11) $5\frac{1}{2}$ feet per minute _____

(12) $\frac{3}{4}$ mile every $\frac{1}{10}$ hour _____

(13) $2.50 per gallon _____

Find each unit rate by writing and simplifying complex fraction. Show your work.

Ratios – Complex Fractions	Workspace	Unit Rates
(14) $\frac{\frac{3}{4}\ cup\ of\ flour}{\frac{1}{2}\ teaspoon\ of\ oil}$		
(15) $\frac{\frac{3}{4}\ mile}{\frac{1}{4}\ hour}$		
(16) $\frac{1\frac{1}{2}\ miles}{3\frac{1}{4}\ hours}$		
(17) A recipe calls for using $\frac{3}{4}$ cup of brown sugar for each $\frac{2}{3}$ cup of white sugar. How many cups of brown sugar are used per cup of white sugar?		
(18) Lauren bikes $1\frac{1}{3}$ miles in $\frac{1}{10}$ hour. What is her rate of speed in miles per hour?		
(19) A novelist can write $2\frac{1}{4}$ pages in $\frac{3}{4}$ hour. Express her writing speed as a unit rate.		
(20) Oliver reads $28\frac{1}{2}$ pages of a book $1\frac{1}{6}$ hours. Express his reading speed in pages per hour.		