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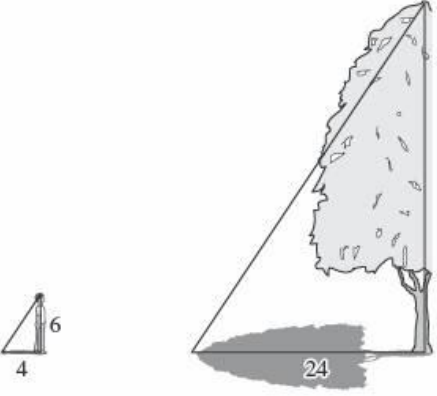
Date: _____

Teacher: _____

6th Grade Math: Unit 2 Rate, Ratio and Proportional Reasoning Review

Questions	Answers (Show Your Work)
1. There were 15 boys and 18 girls in the class, what is the ratio of girls to total students in the class? (DOK1) (6RP1)	1.
2. 500 students attend your school. 170 are 6th graders, 125 are 7th graders, and the rest are 8th graders. Who has the greater ratio relationship? Explain your reasoning. (DOK3) (6RP1)	2.
3. Create your own example of a relationship between two quantities of 2 to 3. Explain the ratio relationship. (DOK3) (6RP1)	3.
4. A ratio can be expressed three ways: Using the fraction bar as in $\frac{2}{3}$ – Using a colon symbol as in 2:3; Using the word “to” as in 2 to 3. Write each ratio using the other two ways: (DOK2) (6RP1)	
Part A) The ratio of 3 inches to 20 feet.	4a.
Part B) The ratio of 26 students: 1 class	4b.
Part C) The ratio of _____	4c.
5. When the denominator of a rate is 1, we call the rate a unit rate. We usually use the key word per or the division symbol / to indicate a unit rate. For example: If a student earns \$7.65 per hour, it is the same as \$7.65/hour, and means \$7.65 for every hour of work. Find the unit rate for the following: (DOK2) (6RP2)	
Part A) 120 eggs from 20 chickens	5a.
Part B) \$55 for 20 people	5b.
Part C) 250 miles in 4 hours	5c.

<p>6. Which is the better deal: 8 ounces of shampoo for \$0.99 or 12 ounces for \$1.47? (DOK1) (6RP2)</p>	6.
<p>7. Mr. Farmer made 13 out of 20 free throws. If Mrs. Cox shoots 25 free throws, what's the minimum number she has to make in order to have a better free-throw percentage than Mr. Farmer? (DOK3) (6RP2)</p>	7.
<p>8. What is the ratio of the length of a side of an equilateral triangle to its perimeter? (DOK2) (6RP2)</p>	8.
<p>9. Mrs. Bailey's recipe for a fruit salad calls for 5 bananas, 3 peaches, 2 apples, 1 pear, 8 strawberries, 1 cantaloupe, and 2 oranges. What is the ratio of peaches to the total? (DOK1) (6RP1)</p>	9.
<p>10. Ashley is trying to visit all 50 states. In 1995 she visited 2 states, in 1996 she visited 3 more states, in 1997 she visited 4 more states, and in 1998 she visited 5 more states. If she continues this pattern, in what year will she visit the 50th state? (DOK2) (6RP1)</p>	10.
<p>11. Anthony caught 4 fish in 2 hours. At that rate, how many fish will he catch in 6 hours? (DOK1) (6RP1)</p>	11.
<p>12. The time that it takes to fill a tank depends upon the rate at which the water is flowing. It takes 40 minutes to fill the tank at the rate of 3 gallons per minute. How many minutes will it take to fill the tank at the rate of 4 gallons per minute? (DOK1) (6RP1)</p>	12.
<p>13. A sugar cookie recipe calls for $\frac{1}{2}$ cups of sugar to make 6 dozen cookies. Based on the recipe, how many cups of sugar must be used to make 20 dozen sugar cookies? (DOK1) (6RP1)</p>	13.
<p>14. If \$55 of a \$220 budget is spent on clothes, what percent of the budget is spent on clothes? (DOK1) (6RP1)</p>	14.
<p>15. What is $\frac{1}{2} \times \frac{3}{4}$? (DOK1) (6RP1)</p>	15.

<p>16. A boy knows that his height is 6 feet. At the time of day when his shadow is 4 feet, a tree's shadow is 24 feet. What is the height of the tree? (DOK2) (6RP3)</p> 	<p>16. *Hint* Proportions!</p>
<p>17. A store advertisement reads "Going Out of Business Sale. Everything is – off." What percent is – ? (DOK2) (6RP3)</p>	<p>17.</p>
<p>18. Three-fourths of the members of student council are female. There are 36 females in student council. What is the total membership?</p>	<p>18.</p>
<p>19. The number of words Maria typed varied directly with the amount of time she spent typing. If she typed 275 words in 5 minutes, how long would it take her to type 1,100 words?</p>	<p>19.</p>
<p>20. Which of the following is a true statement? (DOK1) (6RP3)</p> <ul style="list-style-type: none"> a. – b. – c. – d. – 	<p>20.</p>
<p>21. Mrs. Ackerman has 3 gallons of orange juice and Mrs. Cox drinks 2 pints of the juice, how much juice does Mrs. Ackerman have remaining? (DOK1) (6RP3)</p>	<p>21.</p>
<p>22. Mr. Bailey runs 10000m in his race in 50 minutes. How long does it take him to run 1 km? (DOK3)</p>	<p>22.</p>
<p>23. The printer in the 6th grade work room prints out 5000 copies before the toner needs to be changed. If Mrs. Bailey prints 923 pieces of paper, what percent of the ink is left? (DOK3) (6RP3)</p>	<p>23.</p>

24. Find the numbers that complete the pattern:

10	12	14	16	18
13	15		19	

(DOK2) (6RP2)

24.

25. Find the next number in the pattern.
8, 64, 512, _____ (DOK2) (6RP2)

25.

26. What number replaces the “?” in the table?

n	-3	-2	-1	0	1	2
3^n	$\frac{1}{27}$?	$\frac{1}{3}$	1	3	9

(DOK2) (6RP3)

26.

27. A tree casts a shadow 9 meters long. At the same time, a building 54 meters tall casts a shadow 21 meters long. To the nearest meter, what is the height of the tree? (DOK2) (6RP3)

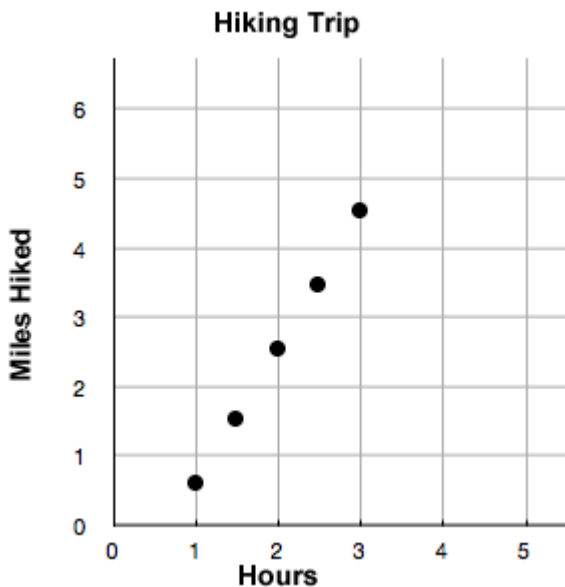
27.

28. The basketball concession stand sold 327 drinks in two games. Write a proportion that could be used to make the best estimate for the number of drinks that will be sold for 10 games? (DOK3) (6RP3)

28.

29. A group of friends went on a hiking trip. The group recorded their progress on the graph. If the rate remains the same, how far would the group have hiked after five hours? (DOK3) (6RP2)

29.



30. How many 750 mL bottles can be filled from 600 L of water? (DOK1)