Name: _____

4-5 Additional Practice

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Leveled Practice **In 1–12, solve each equation.**

1. $t \div 5.4 = 9.01$

$t \div 5.4 \times$ ☐ $= 9.01 \times$ ☐

$t =$ ☐

2. $\frac{3}{4}x = 2$

$\frac{4}{3} \cdot \frac{\square}{\square} x = \square \cdot \frac{4}{3}$

$x = \frac{\square}{\square} \cdot \frac{4}{3}$

$x =$ ☐ or $2\frac{2}{3}$

3. $s + \frac{1}{4} = 12\frac{1}{2}$

4. $2\frac{2}{3} + y = 4\frac{1}{4}$

5. $a - 4\frac{3}{8} = 2\frac{1}{2}$

6. $\frac{2}{7}q = 3$

7. $9\frac{1}{12} = \frac{k}{9}$

8. $k + 24.75 = 36.12$

9. $12.85 = x - 4.34$

10. $15.95 = 3.19n$

11. $t - \frac{2}{3} = \frac{5}{6}$

12. $\frac{7}{10}c = 4\frac{1}{5}$

13. In a 400-meter relay race, 4 runners pass a baton as each of them runs 100 meters of the race. The table shows the split times for the first 3 runners of a relay team. Suppose the team has set a goal of running the race in 210 seconds. Solve the equation $(53.715 + 51.3 + 52.62) + n = 210$ to find the number of seconds, n, within which the 4th runner must finish for the team to meet its goal.

400-Meter Relay Team Split Times (seconds)	
1st runner	53.715
2nd runner	51.3
3rd runner	52.62
4th runner	n

In 14–16, use the recipe.

14. **Be Precise** Sam needs a bowl to mix her punch. She has a 2-cup bowl, a 4-cup bowl, and a 6-cup bowl. What is the smallest bowl Sam can use to make her punch? Explain.

Sam's Fruit Party Punch	
$\frac{2}{3}$ cup	Pineapple juice
$\frac{1}{2}$ cup	Orange juice
$\frac{3}{4}$ cup	Lemon/lime juice
$\frac{1}{3}$ cup	Ginger ale

15. The recipe makes 1 serving of punch. If Sam used 2 cups of pineapple juice to make her punch, how many servings did she make? Use the equation $\frac{2}{3}m = 2$ to find the number of servings.

16. Sam needs $7\frac{1}{2}$ cups of orange juice to make punch for a group of her friends. She only has $5\frac{1}{3}$ cups. Write and solve an equation to represent how many more cups of orange juice Sam needs.

17. **Model with Math** The winning team in a 400-meter relay race had a time of 198.608 seconds. Suppose all 4 of the split times were the same. Write and solve an equation to find the split times.

18. **Use Structure** Teresa placed parentheses in the expression below so that its value was greater than 80. Write the expression to show where Teresa might have placed the parentheses.

$10.5 + 9.5 \times 3 - 1 \times 2.5$

19. There are 6 people seated, equally spaced, along a counter. If each person has $1\frac{7}{8}$ feet of counter space, how long is the counter? Tell how you can check that your answer is reasonable.

20. **Higher Order Thinking** A bus left New York City and arrived in Philadelphia after $2\frac{1}{3}$ hours. From there, it took $1\frac{3}{4}$ hours to travel to Baltimore. It took another $\frac{5}{6}$ hour to go from Baltimore to Washington. If the bus arrived in Washington at 10:05 P.M., at what time did it leave New York City? Explain.

Assessment Practice

21. Which is the solution to the equation below?

$y \div 2.5 = 1.95$

Ⓐ $y = 0.78$ Ⓒ $y = 48.75$

Ⓑ $y = 4.875$ Ⓓ $y = 4{,}875$

22. Which is the solution to the equation below?

$x - 4.21 = 6.047$

Ⓐ $x = 10.68$ Ⓒ $x = 10.247$

Ⓑ $x = 10.257$ Ⓓ $x = 1.837$