Name _____

4-4A Lesson Master

SKILLS Objective A

In 1–8, solve and check.

1. $24x = 16 - 8x$

2. $6r + 9 = 13r - 5$

3. $8n + 5n - 12 = n$

4. $9(a + 3) = 30a$

5. $3(4h + 2) = 2(h + 1)$

6. $\frac{2}{3}(w + 9) = \frac{4}{9}w + 1$

7. $\frac{d}{4} + 4 = \frac{d}{5} - \frac{1}{4}$

8. $7 - \frac{1}{5}x = 3(x + 1)$

PROPERTIES Objective F

In 9, a sentence is solved. Fill in what was done.

9. $\frac{1}{4}(x - 5) = \frac{1}{3}x + 3$

$3(x - 5) = 12\left(\frac{1}{3}x + 3\right)$ _____

$3x - 15 = 4x + 36$ _____

$-x - 15 = 36$ _____

$-x = 51$ _____

$x = -51$ _____

10. To solve $4x + 0.02 = 1.5x + 9$, an effective first step is to add _____ to both sides.

USES Objective H

11. Consumer A gets a cellular telephone contract that requires monthly payments of \$34.99. Consumer B's contract requires monthly payments of 39.99 but offers him a \$75 rebate when he signs up.

   a. After one year, who will have paid more? _____

   b. After two years, who will have paid more? _____

   c. After how many months will A and B have paid the same amount? _____

12. Suppose the city of Atlanta, GA has a population of 471,000 people _____
   that increases by 11,000 people every year, and that Washington, DC has a population of 560,000 that decreases by 3,000 people each year. To the nearest tenth of a year, how long will it be until the two cities have about the same number of residents?