Algebra I
3.2 Skills Practice
Two-Step equations

NAME:_____
DATE:_____ HOUR:____

Solve each equation. Show your work. Box your answers.

1. $4b + 1 = 17$

2. $2c + 18 = 24$

3. $7x - 2 = 5$

4. $3p + 8 = 38$

5. $8v - 1 = 39$

6. $2w - 16 = 0$

7. $5g + 5 = 35$

Write an equation to model each situation. Do not solve the equation.

8. Pizza Express delivers to your house. You pay \$8 for each pizza, plus a \$2 delivery charge for each order. Your total including delivery was \$42. Use p to represent the number of pizzas ordered.

9. Rent-a-DVD charges a rental fee of \$2 per DVD, plus a \$5 fixed monthly fee. You spend \$19 in one month. Use d to represent the number of DVDs rented.

10. A plumber charges a fixed fee of \$50 per visit, plus \$45 for each hour that he is at your home. The total bill comes to \$185. Use h to represent the number of hours the plumber was at your home.

11. You order party favors online. The favors each cost \$3, and there is a fixed shipping fee of \$11. The total cost of your order was \$59. Use f to represent the number of favors you purchased.

Solve each equation. Show your work. Box your answers.

12. $5x + 3 = 23$

13. $8 + 10w = 38$

14. $15 + \frac{v}{7} = 50$

15. $\frac{z}{11} - 6 = 12$

16. $8k - 6 = 18$

17. $3r - 11 = 37$

18. $\frac{h}{9} - 10 = 13$

19. $18 + \frac{s}{5} = 21$

Algebraically determine whether each answer is a solution of the equation.

20. A hospital pays \$9 for each set of scrubs plus a delivery fee of \$13 per order. The total sets of scrubs ordered, s, for an order that cost \$463 can be computed using the equation $9s + 13 = 463$. Did the hospital order 50 sets of scrubs?

21. A car rental service charges a monthly fee of \$19, plus a rate of \$5 for each hour you use a rental car. If your family's total monthly charge was \$94, the total number of hours your family used a rental car, h, can be determined using the equation $5h + 19 = 94$. You thought your family used a rental car for 13 hours last month. Are you correct?

22. A school estimates that there are 23 computers in each of several classrooms, plus an additional 12 classrooms that contain no computers. There are 45 total classrooms, and the total number of computers, c, can be determined using the equation $\frac{c}{23} + 12 = 45$. Are there 805 total computers in your school?