Algebra 1

WP and Variables on Both Sides Equations SG   Date_____ Period____

Solve each equation. Show all work.

1) $m - 6 = 12 + 4m$

2) $p + 3 = -9 + 4p$

3) $11 + p = 1 + 3p$

4) $p - 2 = 3p - p + 3$

5) $4 + 2n = 6n - 5n - 2$

6) $1 + 3p = 1 - 2p$

7) $-3(6x - 1) = 29 - 5x$

8) $-2(1 - 6p) = -23 + 5p$

9) $-17 - p = 6(p - 4)$

10) $27 - 3n = -6(n - 2)$

11) $18 + b = -3(b - 6)$

12) $6(x + 2) = 5x + 12$

13) Chip earns a base salary of $500 per month as a salesman. In addition to the salary, he earns $90 per product that he sells. If his goal is to earn $5000 per month, how many products does he need to sell?

14) A pizza shop charges $9 for a large cheese pizza. Additional toppings cost $1.25 per topping. Heather paid $15.25 for her large pizza. How many toppings did she order?

15) An online movie club offers a membership for $5 per month. Members can rent movies for $1.50 per rental. A member was billed $15.50 one month. Write and solve an equation to find how many movies the member rented.

16) Shirley is going to have the exterior of her home painted. Tim's Painting charges $250 plus $14 per hour. Colorful Paints charges $22 per hour. How many hours would the job need to take for Tim's Painting to be the better deal?

17) Suzanne is going to rent a car while she is out of town. One car rental company offers a flat rate of $35 per day plus $0.10 per mile. Another car rental company offers the same car for $25 per day plus $0.25 per mile. She will need the car for 5 days. How many miles would she need to drive for the first rental company to be the better deal?

18) Jeremy is looking at two different lawncare companies to weed and mulch his flower beds. Greenscape Lawncare offers to charge $100 for the mulch plus $12 per hr for the labor. D & J Landscape offers to charge $23 per hr for the job including the mulch. What is the minimum number of hours the job could be for D & J Landscape to have the better deal?