Algebra I Worksheet #6 Unit 2 page 1 _____

Complete the table for each input-output chart shown.

	1.	2.	3.	4.
Input ↓	$6x + 3 = 27$	$4x + 10 = 30$	$3x - 12 = 15$	$8x - 12 = 52$
↓ **First Operation** ↓	subtract 3 from both sides		add 12 to both sides	
↓ **Output** ↓				
↓ **Second Operation** ↓	divide both sides by 6		divide both sides by 3	
↓ **Output**				

Solve the following equations. Show your steps.

5. $5x + 15 = 40$ **6.** $6x - 12 = 24$ **7.** $4x + 6 = 50$

8. $8x - 20 = 36$ **9.** $7x + 13 = 34$ **10.** $3x - 8 = 19$

11. $2x + 23 = 79$ **12.** $9x - 30 = 24$ **13.** $8x + 28 = 76$

Algebra I   Worksheet #6   Unit 2   page 2

Write an algebraic expression for each of the following. In each case, use N for "the number"

14. five less than the number: _____

15. six times the number: _____

16. eight more than the number: _____

17. three more than five times the number: _____

18. seven less than four times the number: _____

Write an algebraic expression for each of the following.

19. the value in cents of n nickels: _____

20. the value in cents of d dimes: _____

21. the value in cents of q quarters: _____

22. Cindy and John have marbles. The number that Cindy has is three times the number that John has. If x represents the number of marbles that John has, then represent the number that Cindy has in terms of x. _____

23. Cindy and John have marbles. The number that Cindy has is four less than three times the number that John has. If x represents the number of marbles that John has, then represent the number that Cindy has in terms of x. _____

24. A fish sandwich costs twice as much as a soda. If k represents the cost of a soda (in cents), then represent the cost of a fish sandwich in terms of k. _____

25. A fish sandwich costs twenty-five cents more than twice as much as a soda. If k represents the cost of a soda (in cents), then represent the cost of a fish sandwich in terms of k. _____