## Algebra I Worksheet \#4 Unit 2 page 1

Complete the table for each input-output chart shown.

| 1. | 2. | 3. | 4. |  |
| :---: | :---: | :---: | :---: | :---: |
| Input | $2 x+5=11$ | $4 x+3=27$ | $3 x-5=16$ | $\mathbf{6 x - 3 = 3 9}$ |
| First <br> Operation | subtract 5 <br> from <br> both sides | subtract 3 <br> from <br> both sides | add 5 <br> to <br> both sides | add 3 <br> to <br> both sides |
| Output |  |  |  |  |
| $\downarrow$ <br> Second <br> Operation | divide <br> both sides <br> by 2 | divide <br> both sides <br> by 4 | divide <br> both sides <br> by 3 | divide <br> both sides <br> by 6 |
| $\downarrow$ <br> Output |  |  |  |  |


| 5. | 6. | 7. |  | 8. |
| :---: | :---: | :---: | :---: | :---: |
| Input | $\mathbf{3 x}+7=31$ | $7 x+4=25$ | $\mathbf{8 x}-3=37$ | $9 x-6=12$ |
| First <br> Operation | subtract 7 <br> from <br> both sides |  | add 3 <br> to <br> both sides |  |
| Output |  |  |  |  |
| $\downarrow$ <br> Second <br> Operation |  |  |  |  |
| $\downarrow$ <br> Output |  |  |  |  |

Solve the following equations. Show your steps.
9. $6 x-3=15$
10. $4 x+2=26$
11. $5 x-10=35$

## Algebra I Worksheet \#4 Unit 2 page 2

Solve the following equations. Show your steps.
12. $2 x+9=23$
13. $8 x+20=36$
14. $7 x-14=21$
15. $9 x-36=36$
16. $12 x+18=66$
17. $4 x-10=34$

Write an algebraic expression for each of the following. In each case, let N represent the number.
18. three times the number: $\qquad$
19. seven more than three times the number: $\qquad$
20. four times the number:: $\qquad$
21. three less than four times the number:: $\qquad$
22. five more than twice the number:: $\qquad$
23. six less than seven times the number:: $\qquad$
24. eight more than six times the number:: $\qquad$
25. nine less than twice the number:: $\qquad$

