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

Complete the table for each input-output chart shown.

| 1. |  | 2. | 3. | 4. |
| :---: | :---: | :---: | :---: | :---: |
| Input | $x+3=8$ | $x-6=2$ | $6 x=48$ | $\frac{x}{7}=4$ |
| Operation | subtract 3 <br> from <br> both sides | add 6 <br> to <br> both sides | divide both sides by 6 | multiply both sides by 7 |
| Output |  |  |  |  |

5. 

| Input | $x+35=57$ | $x-26=14$ | $5 x=200$ | $\frac{\mathbf{x}}{8}=32$ |
| :---: | :---: | :---: | :---: | :---: |
|  <br> Operation <br> Output | subtract 35 <br> from <br> both sides | add 26 <br> to <br> both sides | divide <br> both sides <br> by 5 | multiply <br> both sides <br> by 8 |
| Out |  |  |  |  |


| 9. | 10. | 11. | 12. |  |
| :---: | :---: | :---: | :---: | :---: |
| Input <br> $\downarrow$ <br> Operation <br> $\downarrow$ |  | $x+9=14$ | $x-6=4$ | $6 x=42$ |$\frac{\mathbf{x}}{3}=3$


| 13. | 14. | 15. | 16. |  |
| :---: | :---: | :---: | :---: | :---: |
| Input | $x+23=81$ | $x-45=12$ | $7 x=350$ | $\frac{x}{12}=3$ |
| $\downarrow$ <br> Operation <br> $\downarrow$ <br> Output |  |  |  |  |
|  |  |  |  |  |

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

Solve the following equations.
17. $x+8=17$
18. $x-6=6$
19. $9 x=63$
20. $\frac{x}{7}=5$
21. $x+51=96$
22. $\mathbf{x}-37=23$
23. $8 x=104$
24. $\frac{\mathrm{X}}{8}=21$

Write an algebraic expression for each of the following.
25. the value in cents of d dimes : $\qquad$ 26. the value in cents of n nickels : $\qquad$
27. the value in cents of $q$ quarters : $\qquad$

Write an algebraic expression for each of the following. In each case, use x for the number.
28. seven more than the number : $\qquad$ 29. eight less than the number : $\qquad$
30. five times the number : $\qquad$

Write an algebraic expression for each of the following.
31. A team lost $x$ games. They won two more games than they lost. They won $\qquad$ games.
32. A team lost $x$ games. They won twice as many games as they lost. They won $\qquad$ games.
33. A team played 12 games. They lost $x$ games. They won $\qquad$ games.
34. A team lost $x$ games. They won two less games than they lost. They won $\qquad$ games.
35. A team lost $x$ games. They won half as many games as they lost. They won $\qquad$ games.
36. A team played 20 games. They won $x$ games. They lost $\qquad$ games.

