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 | 6x = 48 | $\frac{x}{7}=4$ |
|------------------|----------------------------------|---------------------------|------------------------------|--------------------------------|
| Operation | subtract 3 from both sides | add 6 to both sides | divide both sides by 6 | multiply both sides by 7 |
| Output | | | - | |

5.

6.

7.

8.

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

9.

10.

11.

12.

| Input | x+9=14 | x-6=4 | 6x = 42 | $\frac{x}{3}=3$ |
|--------------|--------|-------|---------|-----------------|
| \downarrow | | | | |
| Operation | | | | |
| Output | | | | |

13.

14.

15.

16.

| Input | x + 23 = 81 | x - 45 = 12 | 7x = 350 | $\frac{x}{12} = 3$ |
|------------------|-------------|-------------|----------|--------------------|
| Operation | | | | |
| Output | | | | |

Algebra I Worksheet #2 Unit 2 page 2

Solve the following equations.

17.
$$x + 8 = 17$$

18.
$$x-6=6$$

19.
$$9x = 63$$

20.
$$\frac{x}{7} = 5$$

21.
$$x + 51 = 96$$

22.
$$x-37=23$$

23.
$$8x = 104$$

24.
$$\frac{x}{8} = 21$$

Write an algebraic expression for each of the following.

- 25. the value in cents of d dimes : _____
- 26. the value in cents of n nickels : _____
- 27. the value in cents of q quarters:

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

- 28. seven more than the number: _____
- 29. eight less than the number : _____
- 30. five times the number : _____

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 ____ games.
- 32. A team lost x games. They won twice as many games as they lost. They won _____ games.
- 33. A team played 12 games. They lost x games. They won _____ games.
- 34. A team lost x games. They won two less games than they lost. They won ____ games.
- 35. A team lost x games. They won half as many games as they lost. They won _____ games.
- 36. A team played 20 games. They won x games. They lost _____ games.