Algebra I Worksheet #3 Unit 2 page 1 _____

Complete the table for each input-output chart shown.

	1.	2.	3.	4.
Input	$x + 12 = 35$	$x - 17 = 25$	$6x = 102$	$\frac{x}{9} = 23$
↓ **Operation**	subtract 12 from both sides	add 17 to both sides	divide both sides by 6	multiply both sides by 9
↓ **Output**				

	5.	6.	7.	8.
Input	$x + 45 = 68$	$x - 34 = 95$	$4x = 228$	$\frac{x}{8} = 24$
↓ **Operation**				
↓ **Output**				

Solve the following equations.

9. $x + 4 = 13$ **10.** $x - 5 = 13$ **11.** $4x = 36$ **12.** $\frac{x}{5} = 5$

13. $x + 12 = 15$ **14.** $x - 12 = 9$ **15.** $3x = 51$ **16.** $\frac{x}{4} = 24$

17. $x + 25 = 43$ **18.** $x - 19 = 43$ **19.** $7x = 196$ **20.** $\frac{x}{9} = 17$

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Write an algebraic expression for each of the following.

21. the distance driven at 50 miles per hour for k hours _____

22. the distance walked at 7 miles per hour for h hours _____

23. the distance biked at 15 miles per hour for t hours _____

24. The length of a rectangle is 3 centimeters longer than the width. If w represents the width, then represent the length in terms of w. _____

25. The length of a rectangle is 3 times longer than the width. If w represents the width, then represent the length in terms of w. _____

26. Mary is five years younger than her brother Bill. If B represents Billôs age, then represent Maryôs age in terms of B. _____

27. Kathy is three years older than her brother Jim. If J represents Jimôs age, then represent Kathyôs age in terms of J. _____

28. Tomôs age is one-fourth of his motherôs age. If x represents his motherôs age, then represent Tomôs age in terms of x. _____

29. Timôs age is six times his sonôs age. If y represents his sonôs age, then represent Timôs age in terms of y. _____

30. Sarah has twice as many marbles as Ted. John has 6 fewer marbles than Ted. If t represents the number of marbles Ted has, then represent each of the following in terms of t.

The number of marbles that Sarah has: _____

The number of marbles that John has: _____