Algebra I Worksheet #4 Unit 2 Selected Solutions

Complete the table for each input-output chart shown.

		5.	6.	7.	8.
Input ↓		$3x + 7 = 31$	$7x + 4 = 25$	$8x - 3 = 37$	$9x - 6 = 12$
First Operation ↓		subtract 7 from both sides	subtract 4 from both sides	add 3 to both sides	add 6 to both sides
Output ↓			$7x = 21$		$9x = 18$
Second Operation ↓			divide both sides by 7		divide both sides by 9
Output ↓			$x = 3$		$x = 2$

Solve the following equations. Show your steps.

15. $9x - 36 = 36$
$+36\ \ +36$
$\overline{}$
$\dfrac{9x}{9} = \dfrac{72}{9}$
$x = 8$

16. $12x + 18 = 66$
$-18\ -18$
$\overline{}$
$\dfrac{12x}{12} = \dfrac{48}{12}$
$x = 4$

Write an algebraic expression for each of the following. In each case, let N represent the number.

22. five more than twice the number: __$2N + 5$__

23. six less than seven times the number: __$7N - 6$__