Solving Multi-Step Equations
Variables on Both Sides - No Negative Coefficients

Name: _____ **Date:** _____

👉 Solve the equations.

(1) $-109 + 3x = -4x + 31$

(2) $-48 + 2x = 42 - 3x$

(3) $9x - 55 = x + 57$

(4) $-4x - 24 = -8x + 32$

(5) $-23 + 7x = 4x + 7$

(6) $3x - 46 = 14 - x$

(7) $6x - 68 = 22 - 4x$

(8) $-21 - 6x = -8x + 13$

(9) $-22 + 4x = 14 + 2x$

(10) $-68 - x = 23 - 8x$

(11) $6x - 19 = 3x + 8$

(12) $-23 - 3x = -7x + 25$

(13) $9x - 136 = -3x + 44$

(14) $-x - 83 = -9x + 29$

Solving Multi-Step Equations
Variables on Both Sides - No Negative Coefficients
A N S W E R   K E Y

👉 Solve the equations.

(1) $^-109 + 3x = {}^-4x + 31$
$^-109 + 7x = 31$
$7x = 140$
$x = 20$

(2) $^-48 + 2x = 42 - 3x$
$^-48 + 5x = 42$
$5x = 90$
$x = 18$

(3) $9x - 55 = x + 57$
$^-55 + 8x = 57$
$8x = 112$
$x = 14$

(4) $^-4x - 24 = {}^-8x + 32$
$^-24 + 4x = 32$
$4x = 56$
$x = 14$

(5) $^-23 + 7x = 4x + 7$
$^-23 + 3x = 7$
$3x = 30$
$x = 10$

(6) $3x - 46 = 14 - x$
$^-46 + 4x = 14$
$4x = 60$
$x = 15$

(7) $6x - 68 = 22 - 4x$
$^-68 + 10x = 22$
$10x = 90$
$x = 9$

(8) $^-21 - 6x = {}^-8x + 13$
$^-21 + 2x = 13$
$2x = 34$
$x = 17$

(9) $^-22 + 4x = 14 + 2x$
$^-22 + 2x = 14$
$2x = 36$
$x = 18$

(10) $^-68 - x = 23 - 8x$
$^-68 + 7x = 23$
$7x = 91$
$x = 13$

(11) $6x - 19 = 3x + 8$
$^-19 + 3x = 8$
$3x = 27$
$x = 9$

(12) $^-23 - 3x = {}^-7x + 25$
$^-23 + 4x = 25$
$4x = 48$
$x = 12$

(13) $9x - 136 = {}^-3x + 44$
$^-136 + 12x = 44$
$12x = 180$
$x = 15$

(14) $-x - 83 = {}^-9x + 29$
$^-83 + 8x = 29$
$8x = 112$
$x = 14$