Solve Equation Worksheets

1. Solve the equation for x. For each step, describe the operation used to convert the equation.

$$7\boldsymbol{x} - [4\boldsymbol{x} - 3(\boldsymbol{x} - 1)] = \boldsymbol{x} + 12$$

2. Solve the equation for x. For each step, describe the operation used to convert the equation.

$$2[2(3 - 5\boldsymbol{x}) + 4] = 5[2(3 - 3\boldsymbol{x}) + 2]$$

Solve Equation Worksheets

1. Solve the equation for x. For each step, describe the operation used to convert the equation.

$7x - [4x - 3(x - 1)] = x + 12$

$7x - (4x - 3x + 3) = x + 12$	*Distributive property*
$7x - (x + 3) = x + 12$	*Collected like terms*
$7x - x - 3 = x + 12$	*Distributive property*
$6x - 3 = x + 12$	*Collected like terms*
$5x - 3 = 12$	*Subtracted x from both sides*
$5x = 15$	*Added 3 to both sides*
$x = 3$	*Divided both sides by 5*

2. Solve the equation for x. For each step, describe the operation used to convert the equation.

$2[2(3 - 5x) + 4] = 5[2(3 - 3x) + 2]$

$2(6 - 10x + 4) = 5(6 - 6x + 2)$	*Distributive property*
$2(10 - 10x) = 5(8 - 6x)$	*Commutative property/collected like terms*
$20 - 20x = 40 - 30x$	*Distributive property*
$20 + 10x = 40$	*Added $30x$ to both sides*
$10x = 20$	*Subtracted 20 from both sides*
$x = 2$	*Divided both sides by 10*