



Writing an Equation in Function Form (page 1)

An equation is in *function form* when it is solved for y . (This form will be helpful when graphing a linear equation.) For example, $2x + y = 8$ is not in function form. However, we can quickly rewrite it in function form by subtracting $2x$ from both sides of the equation: $y = -2x + 8$ is function form.

Examples: Write the equations in function form.

(a) $y - 2x = -3$

Solution:

$y - 2x = -3$	original equation
$+ 2x = + 2x$	add $2x$ to each side
$y = 2x - 3$	function form

(b) $2x - y = 5$

Solution:

$2x - y = 5$	original equation
$-2x = -2x$	subtract $2x$ from each side
$-y = -2x + 5$	multiply both sides by -1
$y = 2x - 5$	function form

Write the equations in function form. Show your work.

1. $3x + y = 4$

2. $y - 4x = 5$

3. $3x - y = 4$



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Writing an Equation in Function Form (page 2)

More examples: Write the equations in function form.

(c) $6x + 2y = -4$ Solution:

$6x + 2y = -4$	original equation
$-6x = -6x$	subtract $6x$ from each side
$2y = -6x - 4$	
$\frac{2y}{2} = \frac{-6x}{2} - \frac{4}{2}$	divide both sides by 2
$y = -3x - 2$	function form

(d) $2x + 3y = 15$ Solution:

$2x - 3y = 15$	original equation
$-2x = -2x$	subtract $2x$ from both sides
$-3y = -2x + 15$	
$\frac{-3y}{-3} = \frac{-2x}{-3} + \frac{15}{-3}$	divide both sides by -3
$y = \frac{2}{3}x - 5$	function form

Write the equations in function form. Show your work.

4. $4x + 2y = 6$

5. $3y - 2x = 6$

6. $3x - 4y = 4$

Writing an Equation in Function Form (page 2)

More examples: Write the equations in function form.

(c) $6x + 2y = -4$ Solution:

$6x + 2y = -4$	original equation
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$-3y = -2x + 15$	
$\frac{-3y}{-3} = \frac{-2x}{-3} + \frac{15}{-3}$	divide both sides by -3
$y = \frac{2}{3}x - 5$	function form

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5. $4x + 2y = 6$

5. $3y - 2x = 6$

6. $3x - 4y = 4$