



## Quadratic Equation Word Problem To Expression (Standard Form $f(x)$ ) - Area and Border

1

What quadratic equation, in standard form, comes from calculating the area of the garden?

A 9 by 5 garden has a ditch of width  $x$  on all sides. Its total area, including the ditch is 84.

A $A(x) = 4x^2 + 28x + 45$	B $A(x) = 1x^2 + 29x + 45$
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C $A(x) = 0x^2 + 28x + 41$	
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2

What quadratic equation, in standard form, comes from calculating the area of the garden?

A 7 by 11 garden has a ditch of width  $x$  on all sides. Its total area, including the ditch is 96.

A $A(x) = 2x^2 + 40x + 77$	B $A(x) = 4x^2 + 35x + 78$
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C $A(x) = 4x^2 + 36x + 77$	
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3

What quadratic equation, in standard form, comes from calculating the area of the painting?

A 9 by 8 painting has a border of width  $x$  on all sides. Its total area (border included) is 143.

A $A(x) = 4x^2 + 34x + 72$	B $A(x) = 2x^2 + 34x + 70$
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C $A(x) = 3x^2 + 36x + 72$	
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4

What quadratic equation, in standard form, comes from calculating the area of the painting?

A 5 by 8 painting has a border of width  $x$  on all sides. Its total area (border included) is 72.

A $A(x) = 6x^2 + 26x + 37$	B $A(x) = 4x^2 + 21x + 40$
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C $A(x) = 4x^2 + 26x + 40$	
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5

What quadratic equation, in standard form, comes from calculating the area of the garden?

A 6 by 2 garden has a ditch of width  $x$  on all sides. Its total area, including the ditch is 24.

A $A(x) = 8x^2 + 16x + 11$	B $A(x) = 4x^2 + 18x + 12$
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C $A(x) = 4x^2 + 16x + 12$	
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6

What quadratic equation, in standard form, comes from calculating the area of the painting?

A 8 by 8 painting has a border of width  $x$  on all sides. Its total area (border included) is 132.

A $A(x) = 0x^2 + 32x + 59$	B $A(x) = 4x^2 + 32x + 64$
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C $A(x) = 0x^2 + 34x + 64$	
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7

What quadratic equation, in standard form, comes from calculating the area of the painting?

A 5 by 5 painting has a border of width  $x$  on all sides. Its total area (border included) is 54.

A $A(x) = 4x^2 + 20x + 25$	B $A(x) = 1x^2 + 17x + 25$
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C $A(x) = 4x^2 + 19x + 30$	
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8

What quadratic equation, in standard form, comes from calculating the area of the painting?

A 7 by 4 painting has a border of width  $x$  on all sides. Its total area (border included) is 63.

A $A(x) = 9x^2 + 22x + 30$	B $A(x) = 4x^2 + 21x + 33$
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C $A(x) = 4x^2 + 22x + 28$	
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