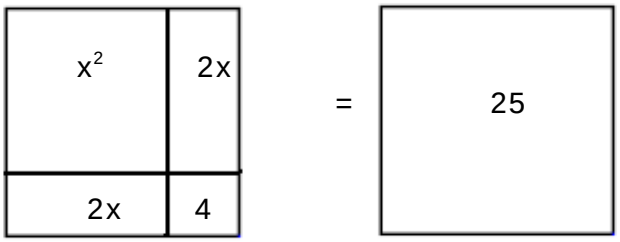
Visualizing the Quadratic Equation with the Area Model - Part III

Recall that if two squares have the same area, then they must have the same dimensions.

If



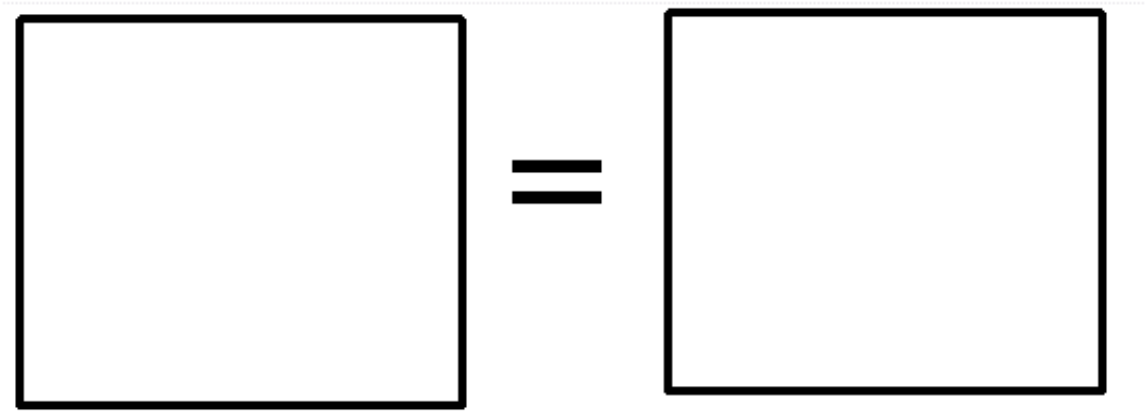
$(x+2)^2 = 25$

Then $x+2 = \pm\sqrt{25}$

$x+2 = \pm 5$

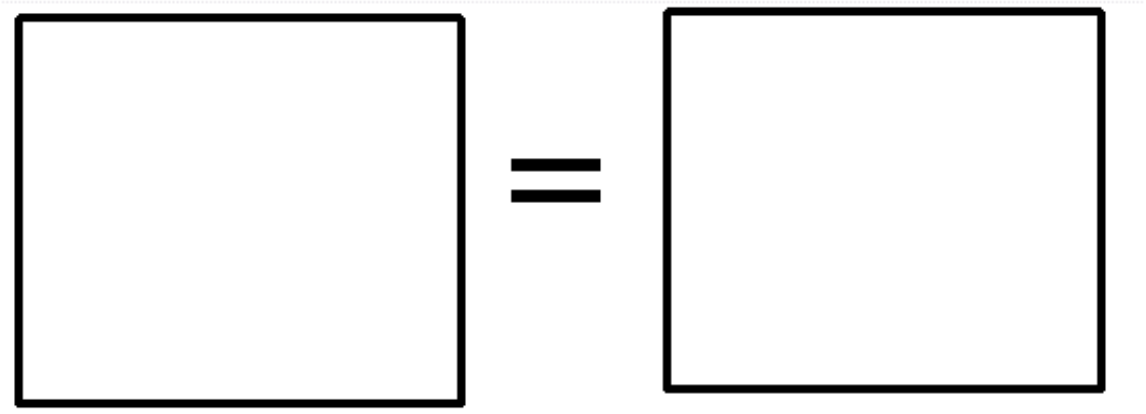
$x = +3 \text{ or } -7$

1. Use the following two squares to illustrate $x^2 + 4x + 4 = 16$

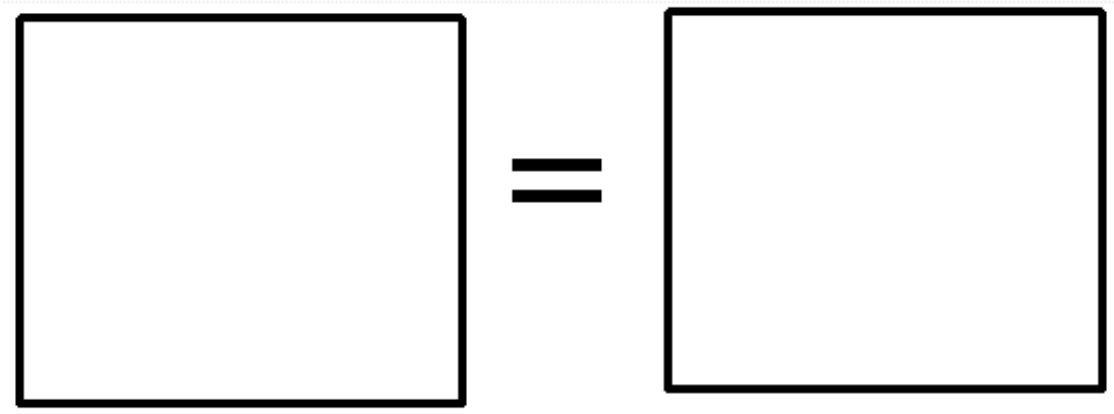


2.

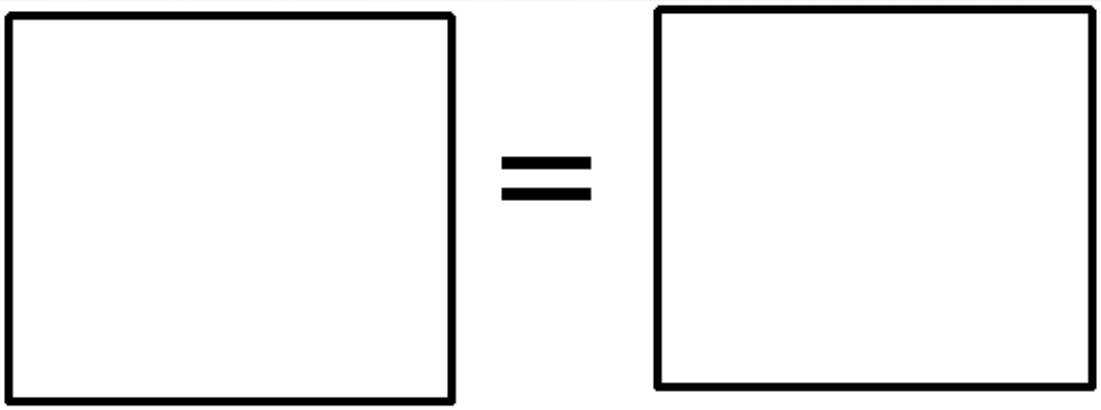
Use the area model to illustrate $x^2 + 2x - 7 = 0$



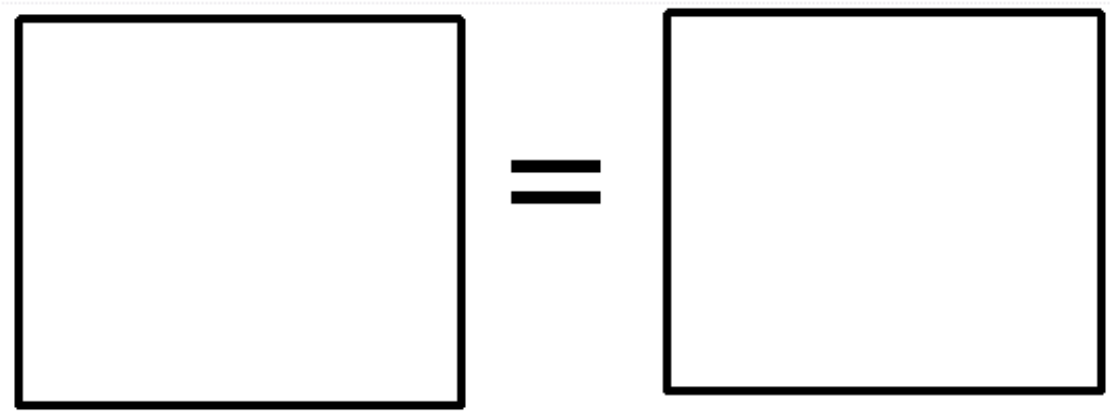
3. Use the area model to set up $x^2 + 3x - 13\frac{3}{4} = 0$.



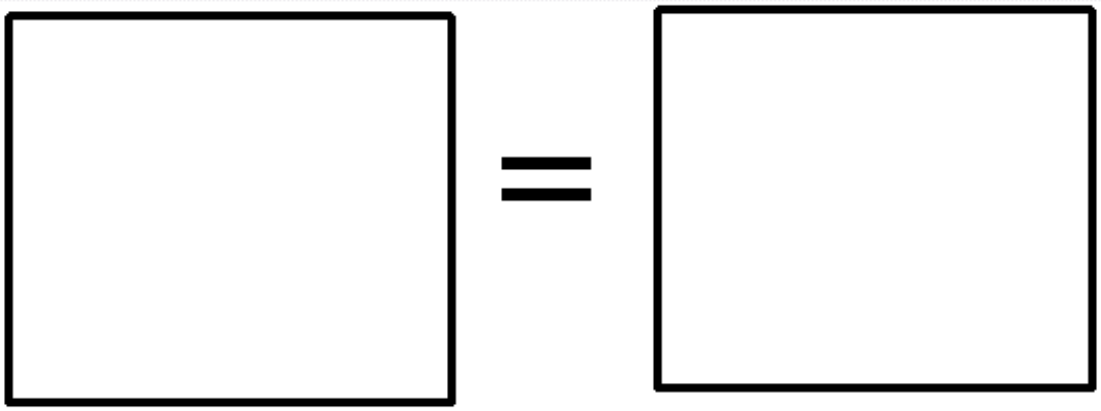
4. Use the area model to set up $2x^2 + 4x - 1 = 0$.



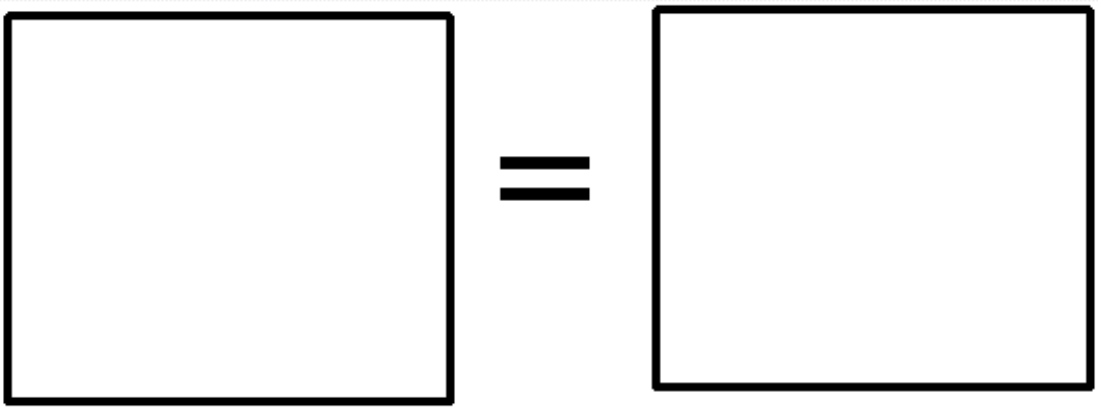
5. Use the area model to set up $3x^2 + 2x - 1 = 0$



6. Use the area model to set up $4x^2 + 4x - 3 = 0$



7. Use the area model to set up $2x^2 + 2x + 1 = 0$



8. Use the area model to set up $ax^2 + bx + c = 0$