

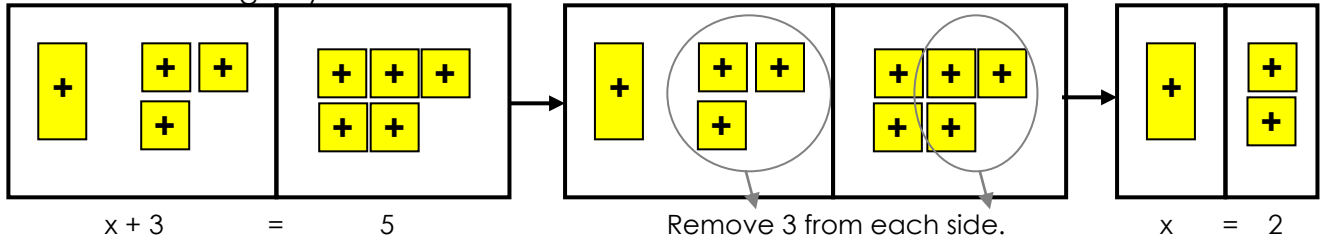
I-8 Hands-On Lab Model Solving Equations

<p>Key:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">+ = 1</div> <div style="text-align: center;">- = -1</div> <div style="text-align: center;">+ + - = 0</div> <div style="text-align: center;">+ = x</div> </div>	<p>Remember:</p> <p>It will not change the value of an expression if you:</p> <ul style="list-style-type: none"> add or remove zero. divide both sides by the same number.
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You can use algebra files to help you solve equations.

Activity 1

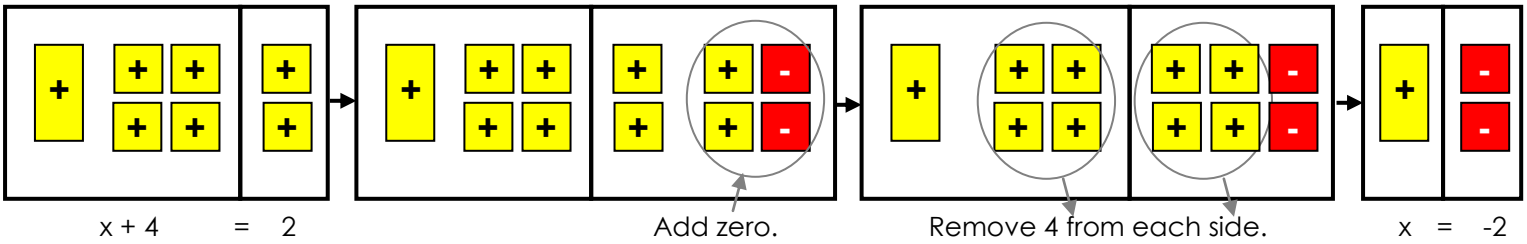
To solve the equation $x + 3 = 5$, you need to get x alone on one side of the equal sign. You can add or remove files as long as you add the same amount or remove the same amount on both sides.



Use algebra files to model and solve each equation. Make sure to draw the model. (2 pts each)

1. $x + 2 = 6$ 2. $x + 2 = 7$

The equation $x + 4 = 2$ is more difficult to solve because there are not enough yellow tiles on the right side. You can use the fact that the sum of two opposites is equal to zero to help you solve the equations.



Use algebra files to model and solve each equation. Make sure to draw the model. (2 pts each)

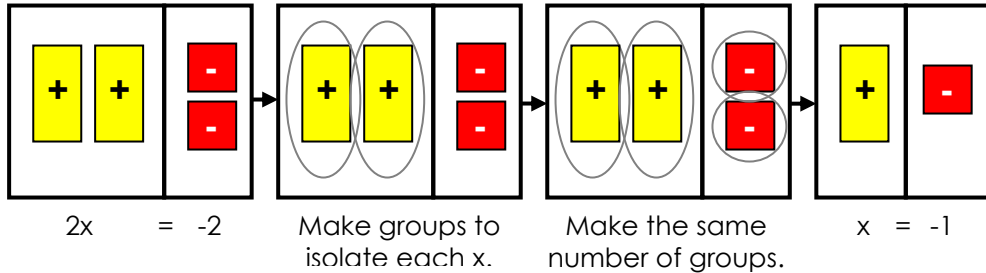
3. $x + 5 = 8$ 4. $x + 8 = 5$

5. $x - 1 = 2$

6. $x - 6 = -4$

Activity 2

To solve the equation $2x = 4$, you need x alone on one side of the equal sign. You can achieve this goal by dividing the left side of the equation by 2. You can divide as long as you divide the same way on both sides.



Use algebra files to model and solve each equation. Make sure to draw the model. (2 pts each)

7. $2x = 8$

8. $3x = 9$

9. $2x = -4$

10. $4x = -4$

11. Brandon used a gift card to buy a \$6 book. He then had \$14 left on his card. Model and solve an equation to find the original value of the gift card. (3 pts)

12. Sierra ran a total of 15 miles on two days. On the first day, she ran 6 miles. Model and solve an equation to find how far she ran on the second day. (3 pts)

13. You earn \$2 every time you wash the dishes. Model and solve an equation to find out how many times you have to wash the dishes in order to make \$8. (3 pts)