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| --- | --- | --- | --- | --- | --- |
| * 2.1.9-More Solving Equations-What is x?Today you will explore more equations on the Equation Mat and will examine all of the tools you have developed so far to solve for  *x*.
* **http://textbooks.cpm.org/images/cc3/common/plus_minus.png2-81.** On your paper, write the equation represented in each diagram below. For each equation, simplify as much as possible and then solve for  *x*or  *y*.  Be sure to record your work on your paper.

|  |  |
| --- | --- |
| a.  http://textbooks.cpm.org/images/cc3/chap02/cc3_chap02_2.1.9_2-81.png | b.  http://textbooks.cpm.org/images/cc3/chap02/cc3_chap02_2.1.9_2-81b.png |

* **2-82.** IS THERE A SOLUTION?
* While solving homework last night, Richie came across three homework questions that he thinks have no solution.  Build each equation below and determine if it has a solution for  *x*.  If it has a solution, find it.  If it does not have a solution, explain why not.

|  |  |  |
| --- | --- | --- |
| a.  http://textbooks.cpm.org/images/cc3/chap02/cc3_chap02_2.1.9_2-82a.png | b.  http://textbooks.cpm.org/images/cc3/chap02/cc3_chap02_2.1.9_2-82b.png | c.  http://textbooks.cpm.org/images/cc3/chap02/cc3_chap02_2.1.9_2-82c.png |

*
* **2-83.** Continue to develop your equation-solving strategies by solving each equation below (if possible).  Remember to build each equation, simplify as much as possible, and solve for  *x*or  *y*.  There are often multiple ways to solve equations, so remember to justify that each step is “legal.”  If you cannot solve for  *x*, explain why not.  Be sure to record your work.
	1. −*x* + 2 = 4
	2. 4*x* − 2 + *x* = 2*x* + 8 + 3*x*
	3. 4*y* − 9 + *y* = 6
	4. 9 − (2 − 3*y*) = 6 + 2*y* − (5 + *y*)
 |