

Lesson 5-1: Modeling Polynomials on the Basic Mat

The terms of a polynomial are separated by plus or minus signs. Using the Basic Mat allows you to model expressions with negative terms.

Example: Model the polynomial $2x^2 - 3x + 1$

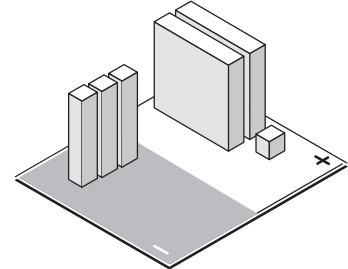
Step 1.

Rewrite the polynomial as a sum.

$$2x^2 - 3x + 1 = 2x^2 + (-3x) + 1$$

Step 2.

Show each term on the Basic Mat. The first and last terms are positive. They go on the top section. The middle term is negative. It goes on the bottom section.



Try It

1. Move the green unit block to the bottom of the Basic Mat.

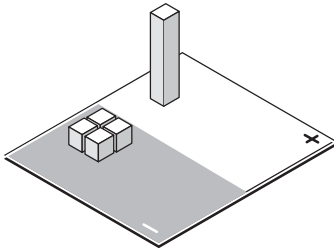
What new polynomial have you modeled? _____

2. Model the polynomial $2y^2 - 3y + 1$.

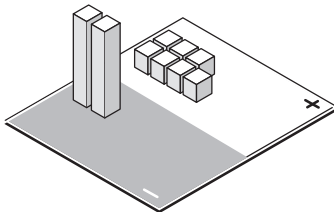
Practice

Model each polynomial on the Basic Mat using unit blocks, x blocks, and x^2 blocks. Write each polynomial.

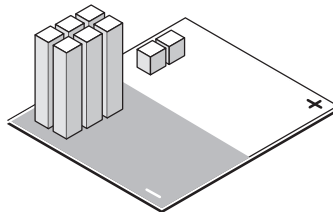
3.



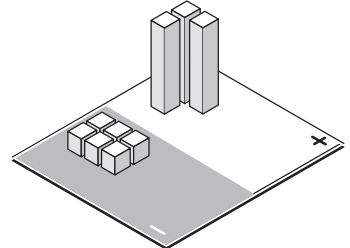
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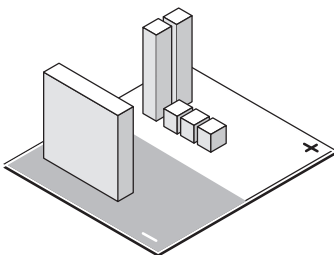
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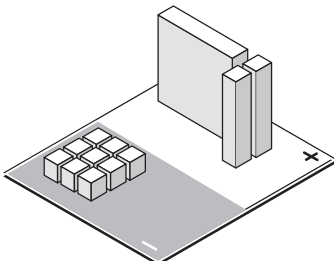
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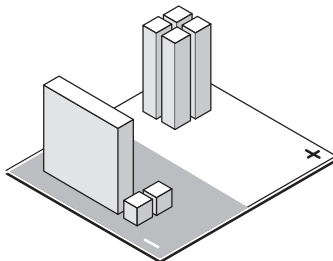
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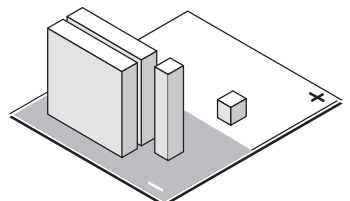
8.



9.



10.



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Model each polynomial on the Basic Mat. Record by sketching.

11. $4 - 3x$

12. $x^2 - 2x$

13. $-x^2 - 2x + 3$

14. $-x - 2y + 3$

15. $-2y - 1$

16. $2y^2 - 5$

17. $y^2 + 3y - 2$

18. $y^2 + 1 - x^2$