

GETTING STARTED WITH TACTILE ALGEBRA TILES

Through Students' Eyes



AMERICAN
PRINTING
HOUSE





Presenters

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Learning Objectives

- The participants will learn the basics of using Tactile Algebra Tiles to represent numbers and variables
- The participants will learn how to implement adding, and subtracting integers.
- The participants will learn how to simplify algebraic expression.
- The participants will learn how to solve linear equations.



WHAT IS TACTILE ALGEBRA TILES

And why it is useful to the student?



Concepts

- Students with low vision tend to rely on their memory skills (Withagen et al., 2013).
- Most recommended way of teaching to students with low vision is through concrete manipulatives (Withagen et al., 2013).
- Students with low vision explore objects one at a time. Spatial and directional concepts are more challenging (Hatwell, 2003).
- 10 out of 12 students were as successful as their peers when provided with appropriate curricular and increase in the participation (Rule et al., 2011).

Why are Algebra Tiles useful?

- Math concepts presented in an accessible format.
- Give concrete form to abstract ideas
- When teachers uses manipulatives during instructions, the sighted peers benefit from it as well (Rule et al., 2011).
 - Provides a universal way
- Helps build the spatial understanding of mathematics.
- Increases self-esteem



UNBOXING TACTILE ALGEBRA TILES

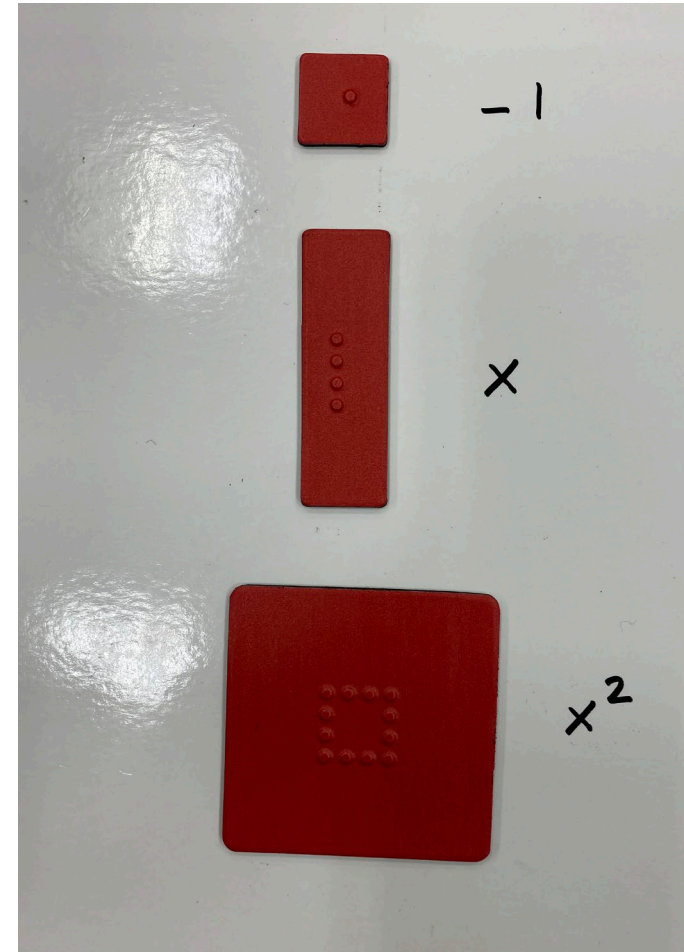
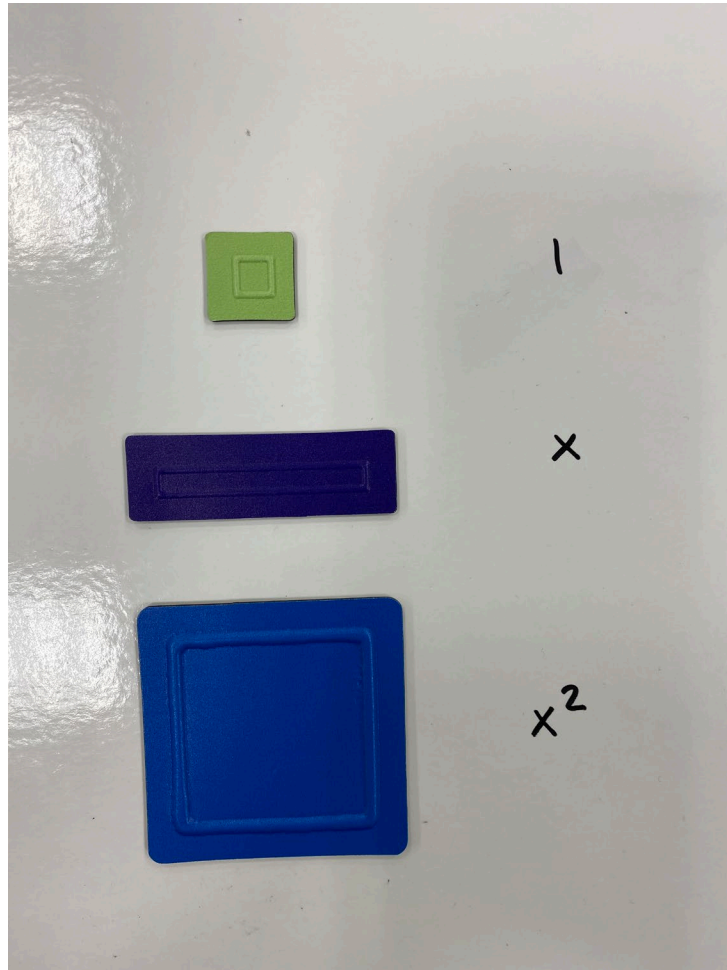


What comes in the box?

- Small lime & red square titles – 32 pieces
- Violet & red rectangle titles – 12 pieces
- Large blue & red square titles – 6 pieces
- Board – 2 pieces
- Black separation bars – 2 pieces



Algebra Tile Demonstration





INTEGERS



Working with Integers

- Model adding integers
- Model subtracting integers



SIMPLIFYING ALGEBRA



Working with Algebraic Expressions

- Model simplifying algebraic expression
- Model Distributive Property
- Model Factorizing Algebraic Expressions



SOLVING LINEAR EQUATIONS



Working with Linear Equations

- Model one-step equation
- Model two-step equations



REAL LIFE WORD PROBLEM



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