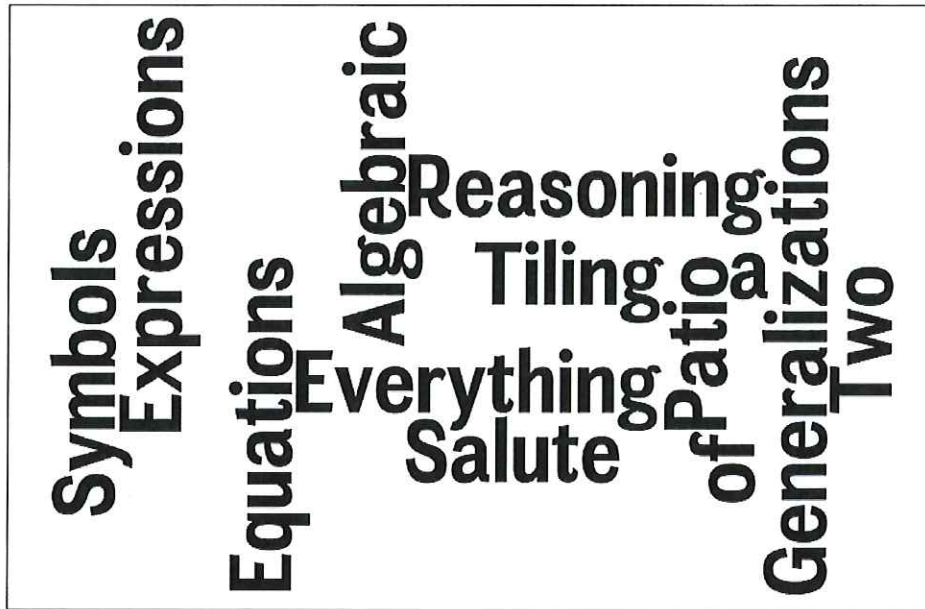


Promoting Algebraic Thinking through the Lens of Number



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Which is worth more, a SMILE or a FROWN?

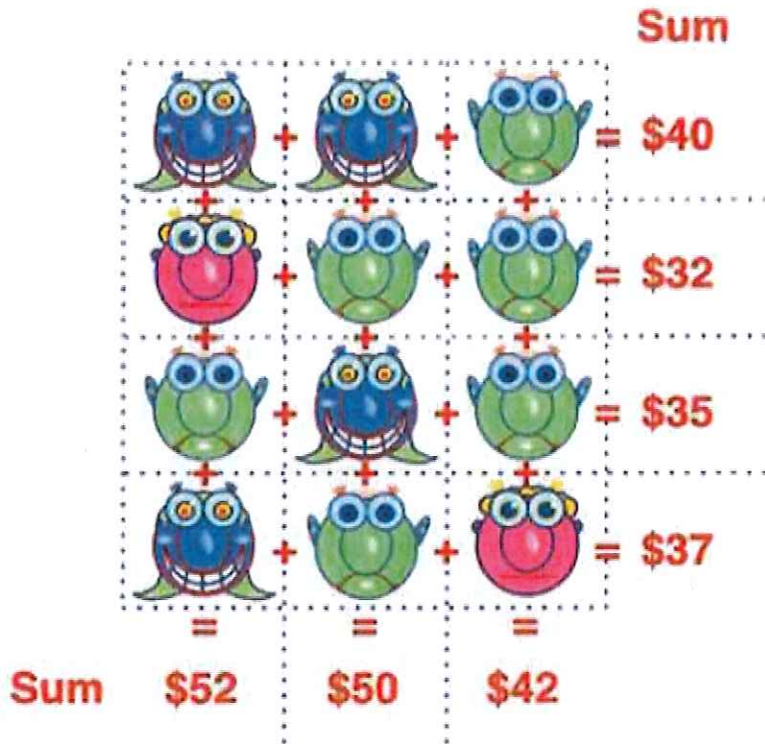


Figure This! The costs of combinations of frowns, smiles, and neutral faces are shown. How much is a smile worth?

Hint: Find a way to combine two of the rows or columns that have something in common.

Reasoning about unknowns is essential in studying equations. Economists, nurses, chemists, and engineers all use equations in their work.

What is the value of each face?

Frown? _____ Smile? _____ Neutral face? _____

Explain your reasoning.

INTERNET RESOURCES

❖ Scales and Balance



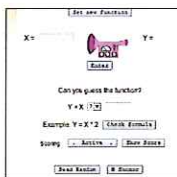
http://nlvm.usu.edu/en/nav/frames_asid_324_g_3_t_2.html

❖ Pan Balance Shapes



<http://illuminations.nctm.org/Activity.aspx?id=3531>

❖ Function Machine:



<http://www.shodor.org/interactivate/activities/FunctionMachine/>

❖ Function Machine Math Playground



<http://www.mathplayground.com/functionmachine.html>

❖ Stop that Creature!



<http://pbskids.org/cyberchase/media/games/functions/>

Free Apps for the iPad

- **Visual Algebra Puzzles**



Create your own algebra puzzles then try to solve them! This easy to use, educational tool was designed to work together with Shuttle Mission Math, an algebraic reasoning game in the app store. Puzzles can be solved with at least one of the following visual strategies: Scale Up, Scale Down (multiply or divide),

<https://itunes.apple.com/us/app/visual-algebra-puzzles/id662990649?mt=8>

- **Shuttle Mission Math**



Shuttle Mission Math is a mathematical puzzle game that makes algebraic thinking both visual and interactive. The goal is to find the weight of each space creature and assemble a team for the next shuttle mission.

<https://itunes.apple.com/us/app/shuttle-mission-math/id498617241?mt=8>

- **Algebra Champ**



Game like environment for solving linear equations

<https://itunes.apple.com/us/app/algebra-champ/id398873050?mt=8>

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