



# Family Math Newsletter

## Intermediate

Issue 1 • December 2023

### Game: Multiplication Zone

**Materials: Deck of Cards (Ace = 11, Jack = 12, Queen = 13, King = 14)**

**Instructions:** This is a game for two to four players. Each player is dealt 10 cards. A card from the remaining stack is flipped face up. Its value is multiplied by 10. Players look at their cards and try to find a pair of cards whose product is in that "decade." For example: If the flipped card is a six, then the zone is any number in the sixties (60-69), so a winning pair would be 9 and 7 (product 63) or 12 and 5 (product 60), etc. Any player who can make a pair removes those cards from their hand. Flip over the next card from the "Remaining Stack" to determine the next zone. Play continues until one player's hand is empty.



Source: Acing Math

### Math Talk: Data Literacy

The size and calories of fast-food menu items have changed over the past 30 years. What do you notice and wonder about these changes? What can you infer from this graph beyond what it shows directly? What may be the deeper story that comes from this graph? What other math do you see in these graphs?

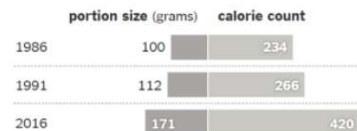
#### ENTREES



#### SIDES

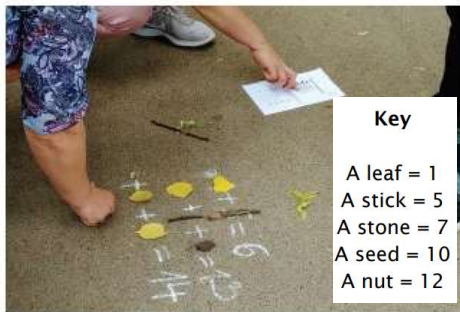


#### DESSERTS



Source: [The NY Times, What's Going on in This graph?](#)

### Taking Learning Outdoors:



#### Key

- A leaf = 1
- A stick = 5
- A stone = 7
- A seed = 10
- A nut = 12

Use natural materials to represent numbers for algebra equations. Find 5 different natural materials and assign them each a number

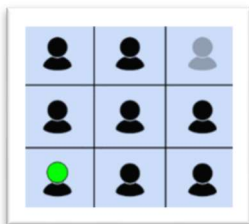
of 1, 5, 7, 10 or 12. Can you use your natural materials to create an equation that has a sum of: **6 82 13 14**

### Good Read:



Click [here](#) to find ways in which you can support mathematics learning at home.

### Problem Solving Tasks and Experiences



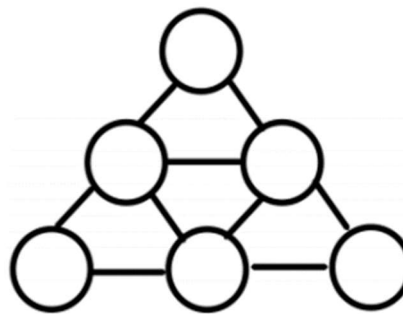
Problem: There are nine people spaced evenly in a 3X3 grid. The person in the top right corner is removed leaving an empty space. How can you move the person from the bottom left corner into the space?

People can only move horizontally or vertically into

empty spaces. How many moves does it require? Is this the minimum number of moves? What if it were a 4X4 grid? 5X5? HINT: Using paper squares to replicate this image, may be helpful for children.

Source: BCAMT Weekly Math Tasks, People Mover

### Puzzle



Logic puzzles and riddles are a great way to encourage math thinking, collaboration and perseverance in children. Working together, can you solve this puzzle? Fill in each circle with a [prime](#) number so that the sum of the large triangle equals 20 and

each small triangle has the same sum.

Source: Corbett Maths