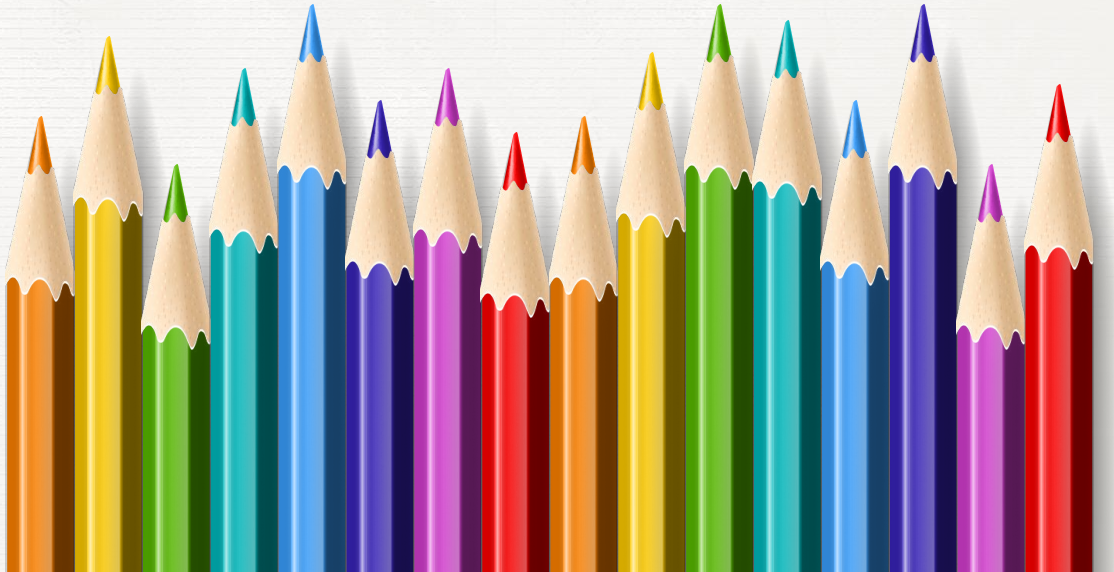
Fact Fluency

Island Creek Parent Information Night
February 18, 2025



Agenda

Math Joy

Research

How to support your child

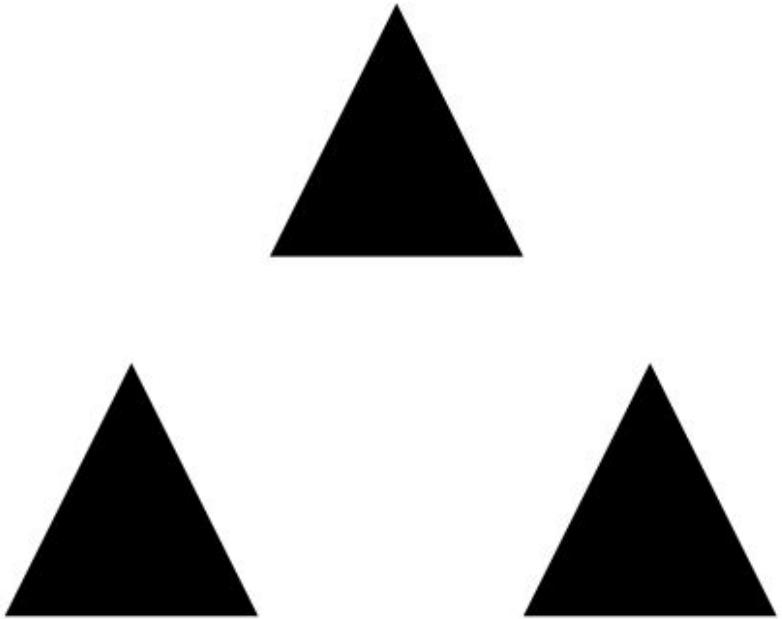
How many sides?

How many sides?

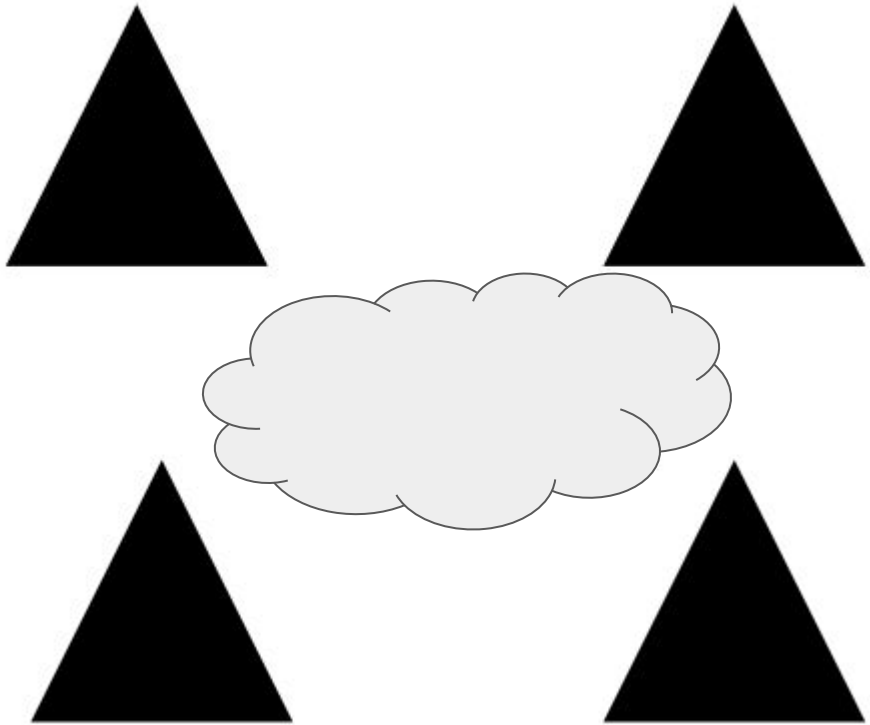
How do you know?

How many sides?

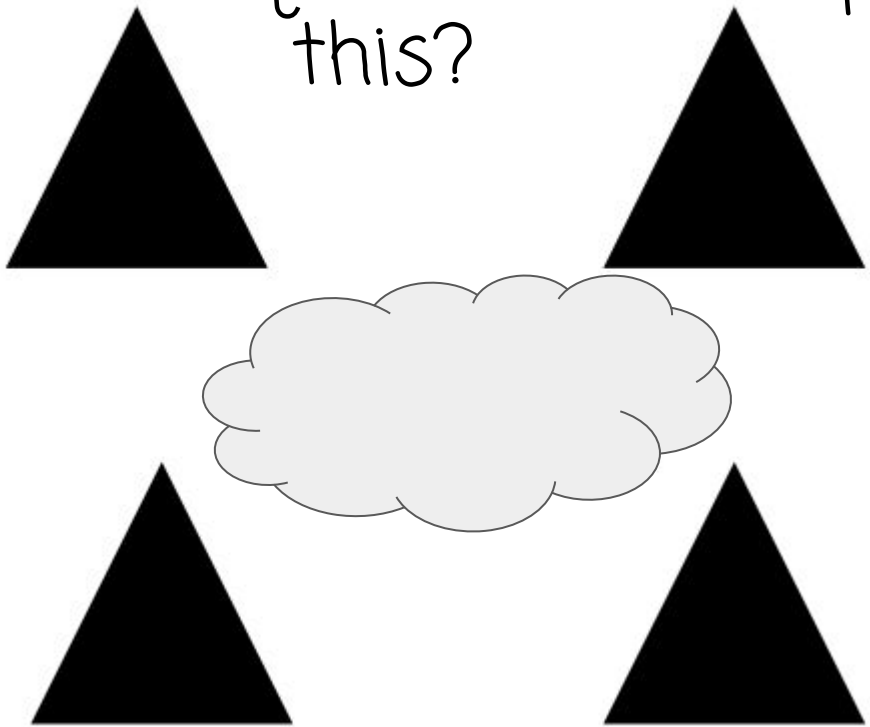
How do you know?



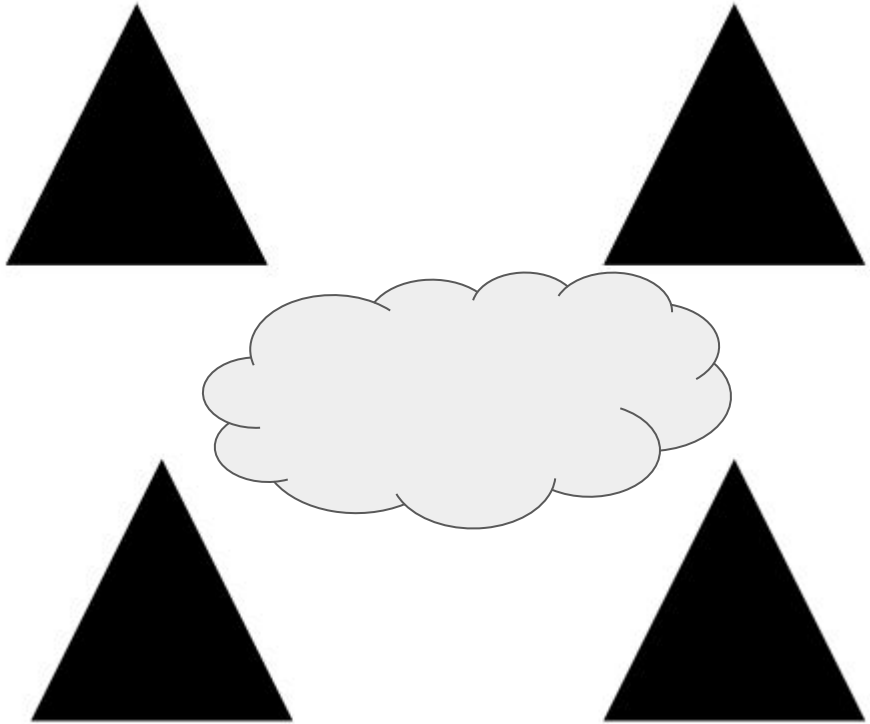
How many sides can you see?



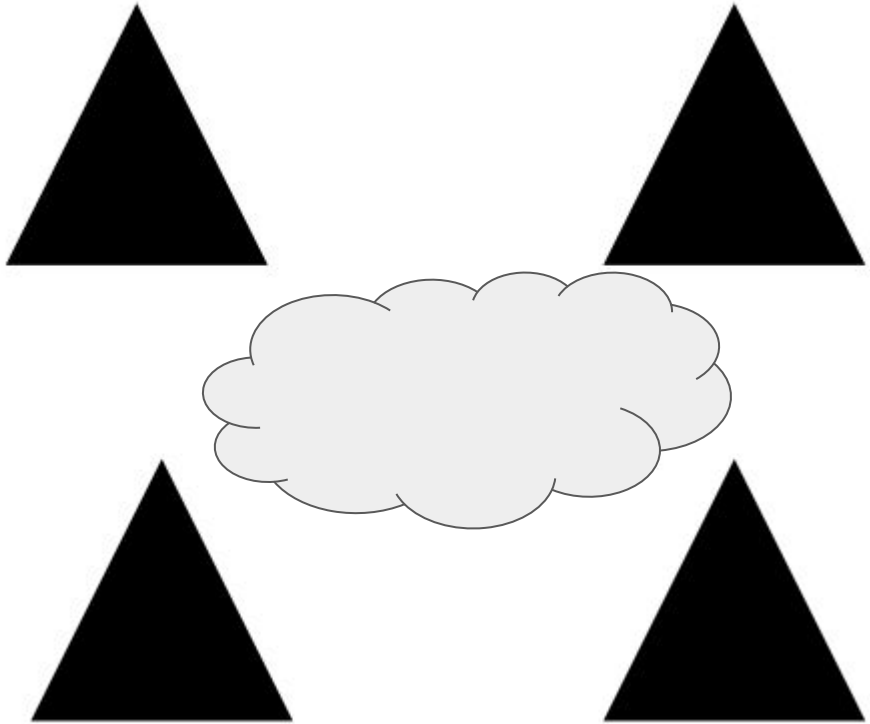
There are 16 total sides. What mathematical equation could represent this?



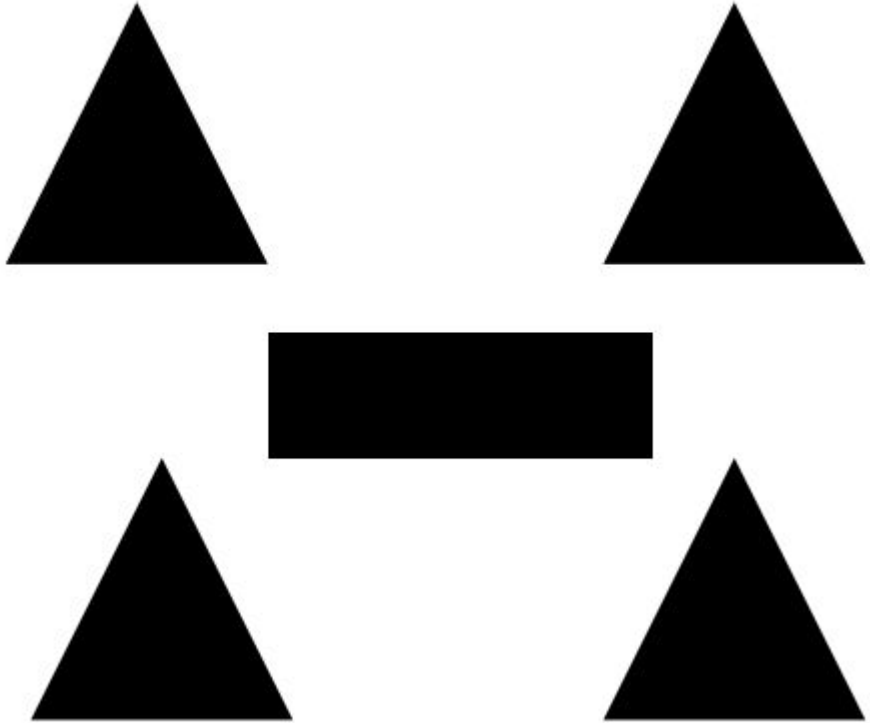
There are 16 total sides. How many sides are under the cloud?

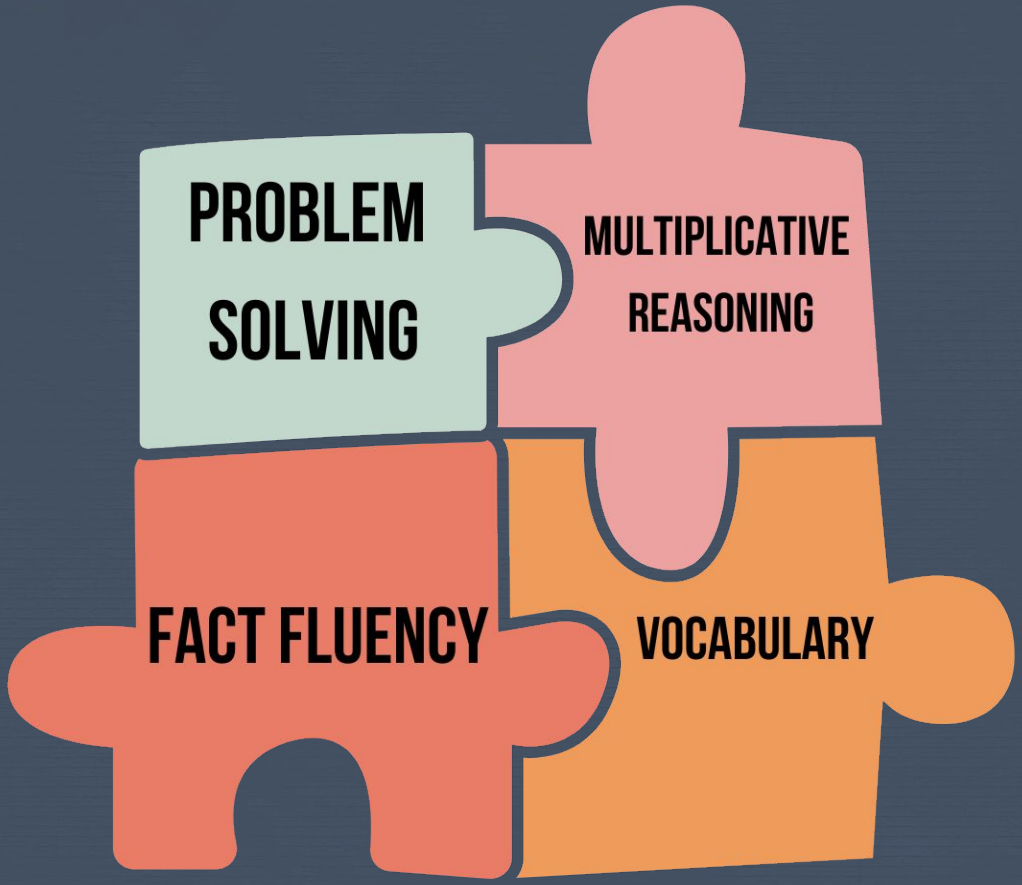


There are 16 total sides. What kind of shape could be under the cloud?

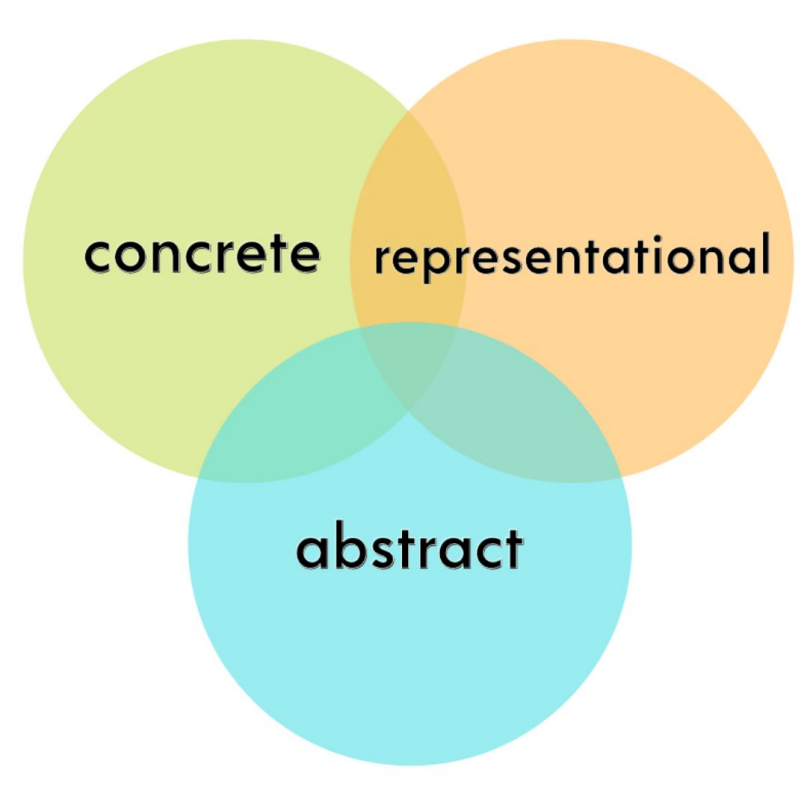


There are 16 total sides. What kind of shape could be under the cloud?




PROBLEM SOLVING
MULTIPLICATIVE REASONING
FACT FLUENCY
VOCABULARY

CRA Model



Learning multiplication is a developmental process. Children need to move through the stages of understanding before achieving fluency.

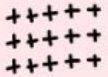
Multiplication and Division Fluency: A Developmental Continuum

1. Can share items into equal groups and counts by one to check equality.

2. Can use stress or skip counting to count visible items arranged groups.

3. Can use stress or skip counting to count screened items. Relies on visible counters to track.

4. Can use skip or stress counting in repeated addition and subtraction without visible markers.



5. Can reason with groups of groups. Can recall facts quickly and use the commutative property and inverse operation.

How many do you see?

How many do you see now?

How did Picture 1 help you know how many in Picture 2?

Picture 1

Picture 2

Seeing the Patterns: The Power of Connections

Math isn't just a collection of facts; it's a web of interconnected ideas. When children see these connections, they develop deeper understanding and can build their own strategies.

"Mathematics is the science of patterns."

— Lynn Steen

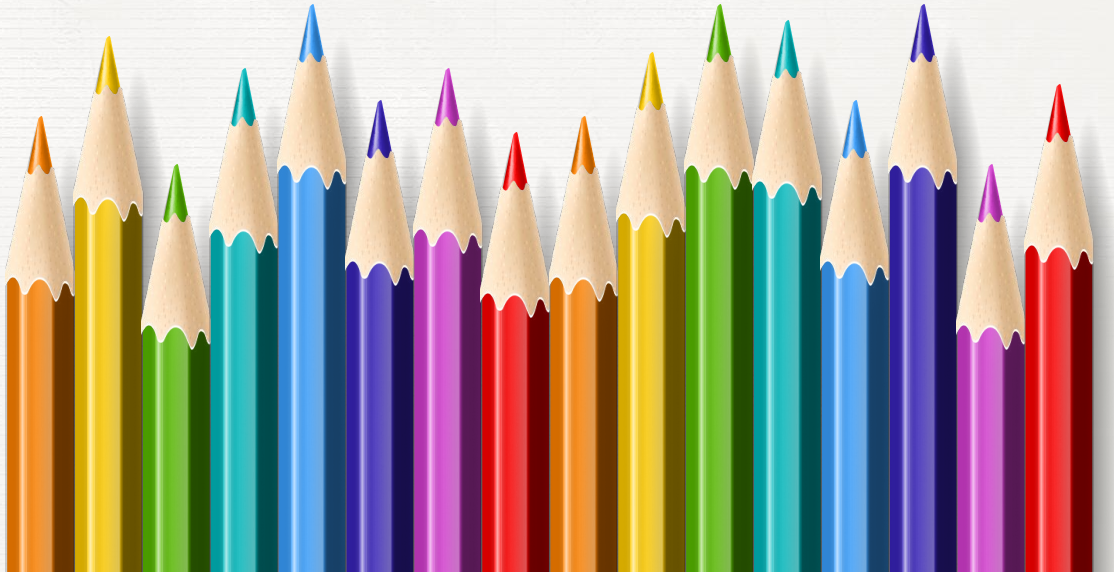
Fluency vs. Memorization

Rote memorization isn't enough. We want children to understand multiplication and division, not just memorize facts.

Making Math Fun at Home

Strategies for Supporting Fact Fluency

- Playing math games (card games, dice games, board games).
- Using manipulatives (counters, blocks).
- Connecting multiplication to everyday activities (cooking, shopping).
- Talking about math in a positive way.



Multiplication Tic-Tac-Toe

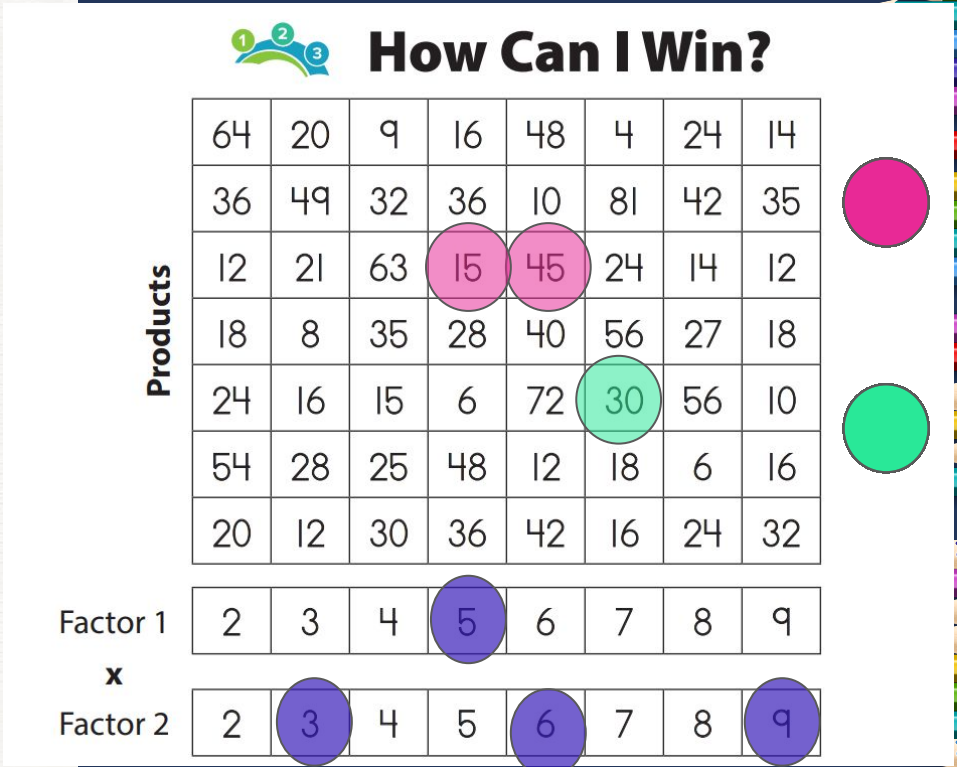
1. Each player chooses a focus f
2. Roll the dice and multiply it by the focus factor
3. Write the product on the board (use different colors)
4. The first player to 3 in a row wins.

30	27	54
36	45	
24		18

Player A FOCUS FACTOR	Player B FOCUS FACTOR
6	9

How Can I Win

1. Player A picks one factor from the top row and one factor from the side row.
2. Player A multiplies those factors and puts a marker on the product on the board.
3. Player B moves one of the factors they didn't just use to a different factor in the same row.
4. Player B multiplies the new factors and puts a marker on the product.
5. Players take turns until someone gets four markers in a row.

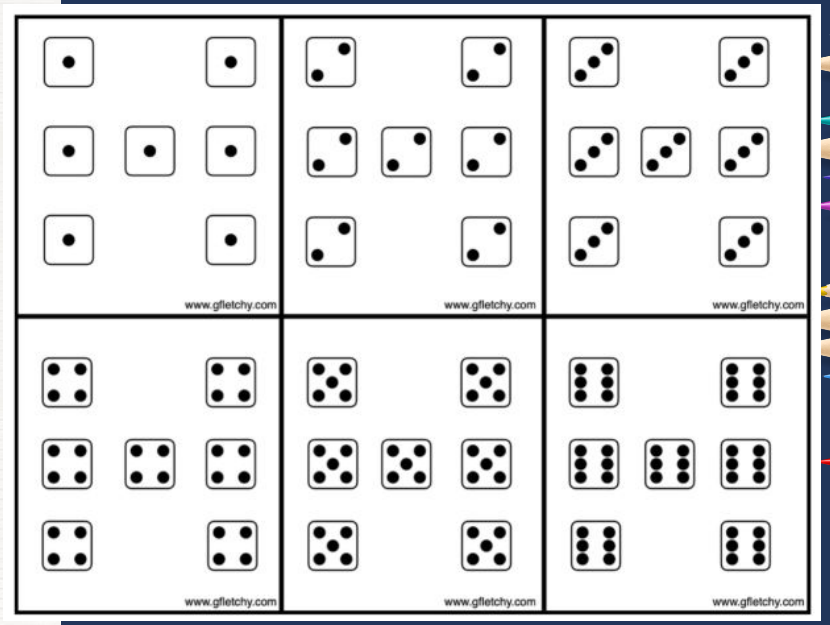


Multiplication Subitizing Cards

Not your traditional flash cards!

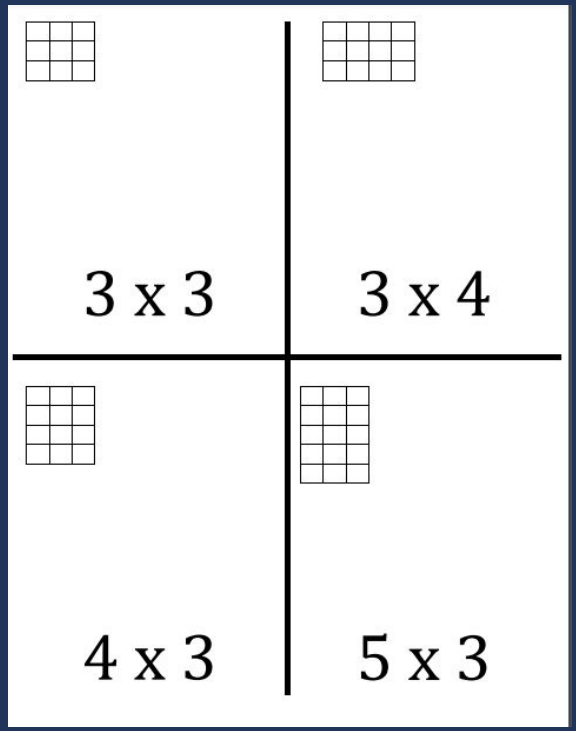
Ask: How many dots do you see?

How do you know?



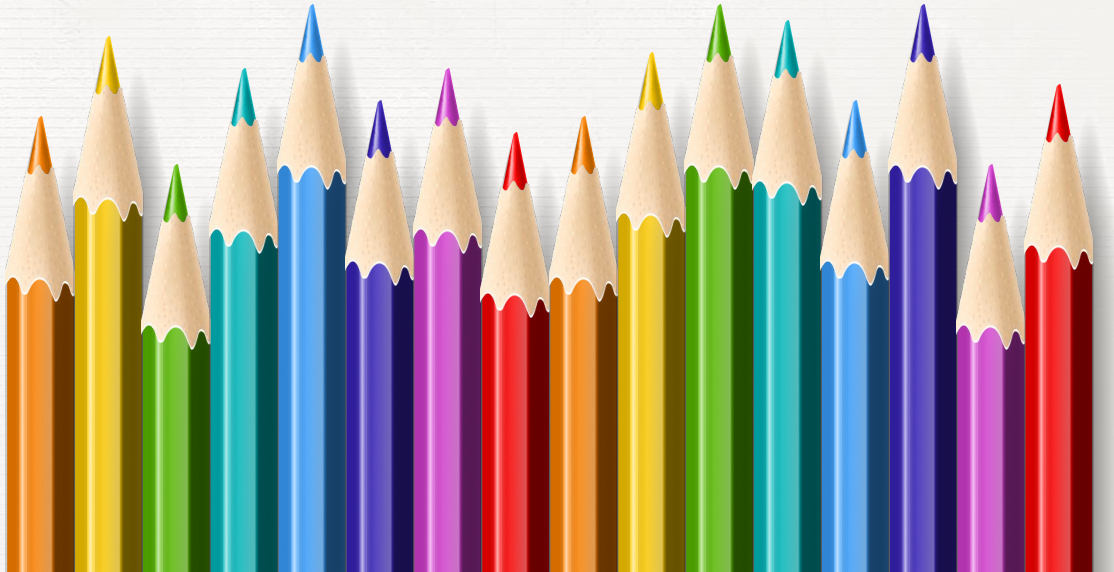
Multiplication Array Flashcards

Flashcards that build conceptual understanding



Online Resources

1. khanacademy.org
2. 99math.com
3. ST Math

Thank You!

Please fill out the feedback form.