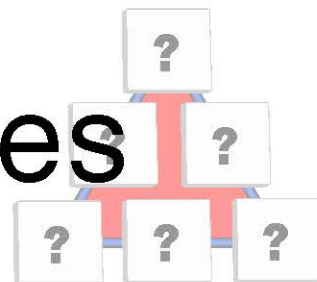


Chip Number Puzzles



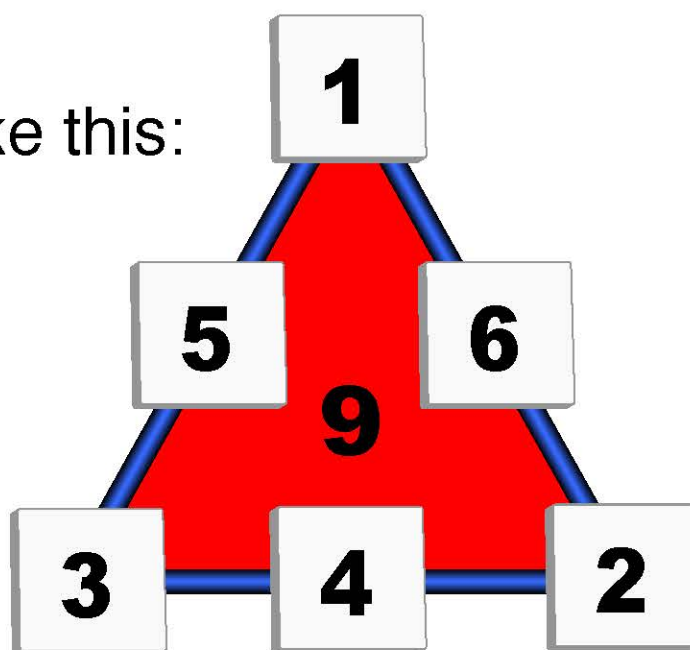
Place the numbered chips in each **CHIP NUMBER PUZZLE** so that every **STRAIGHT LINE** of numbers adds up to **the SAME SUM**.

In this puzzle the chips in each **STRAIGHT LINE** must add up to **9**

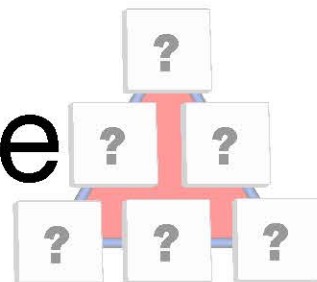


Like this:

Try the different **CHIP NUMBER PUZZLES** at this table.



Chip Number Puzzle

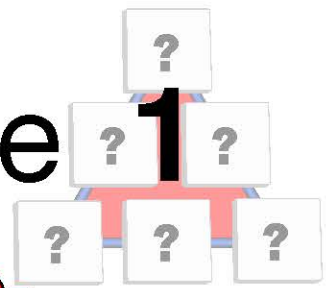


List of materials needed for this activity:

Chip Number Puzzle task cards

Paper numbers cut from each task card

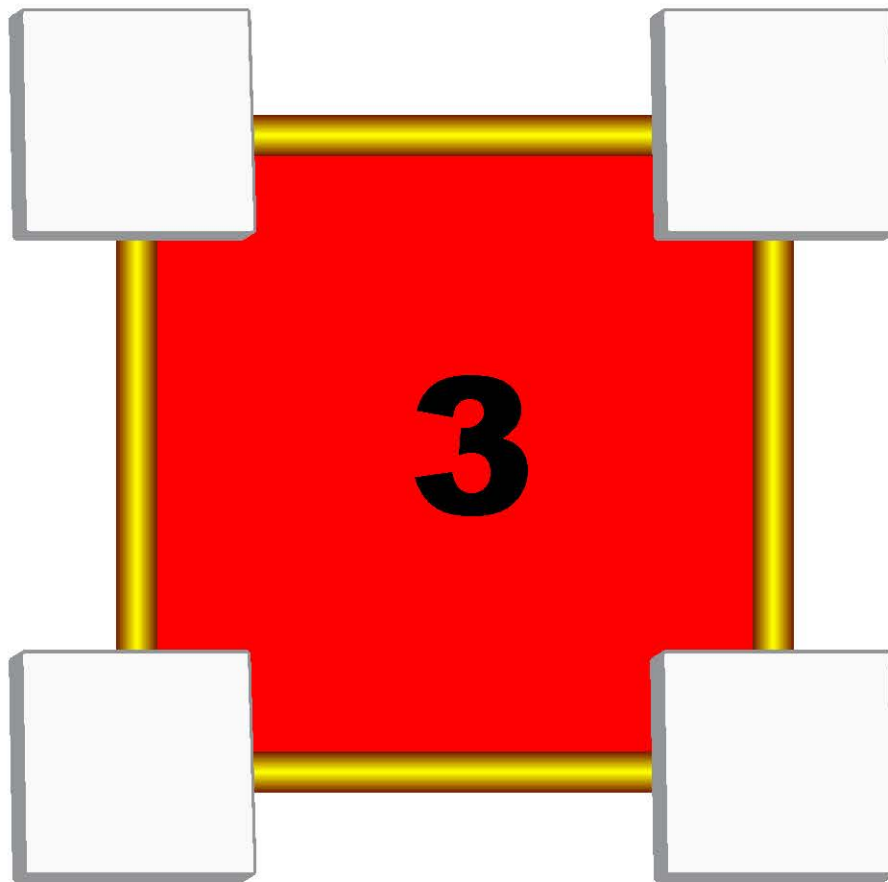
Chip Number Puzzle



Place these **NUMBER CHIPS**:

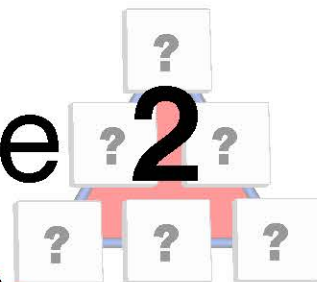


So that each line of squares
adds up to **3**



There is **ALWAYS** a **PATTERN** in the corner numbers.

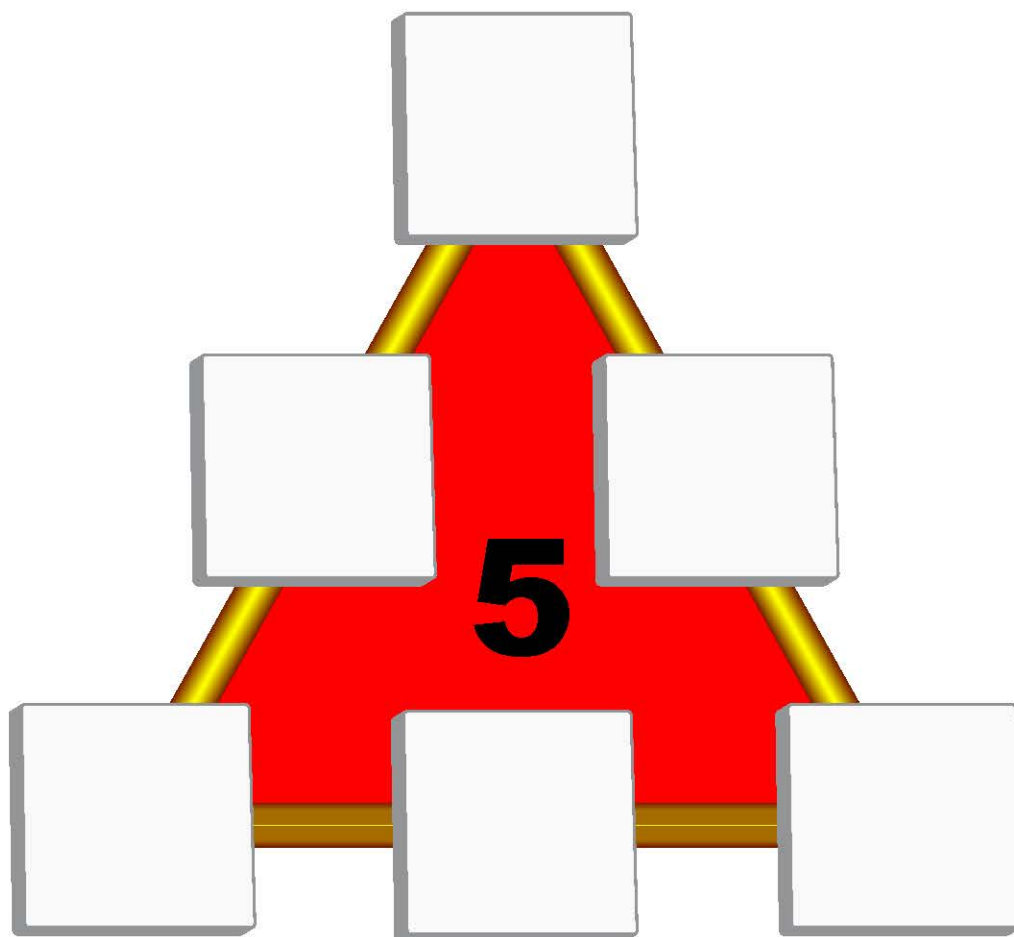
Chip Number Puzzle



Place these **NUMBER CHIPS**:

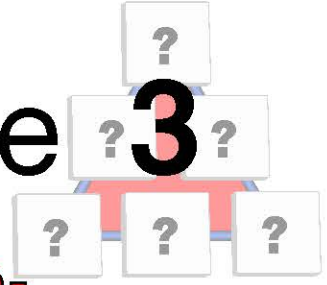


So that each line of squares
adds up to **5**

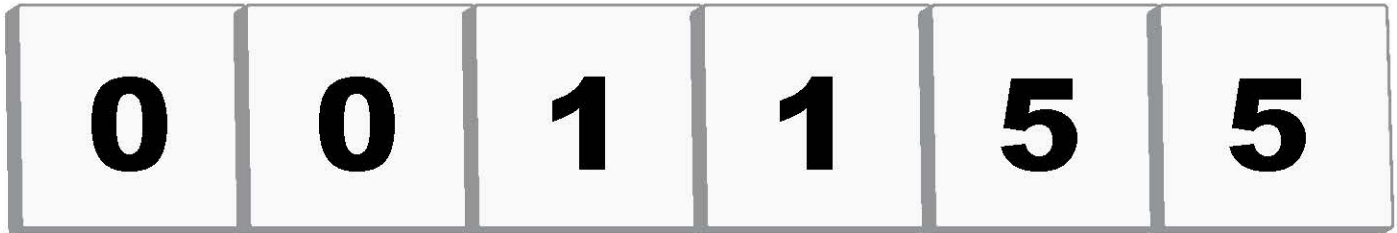


There is **ALWAYS** a **PATTERN** in the corner numbers.

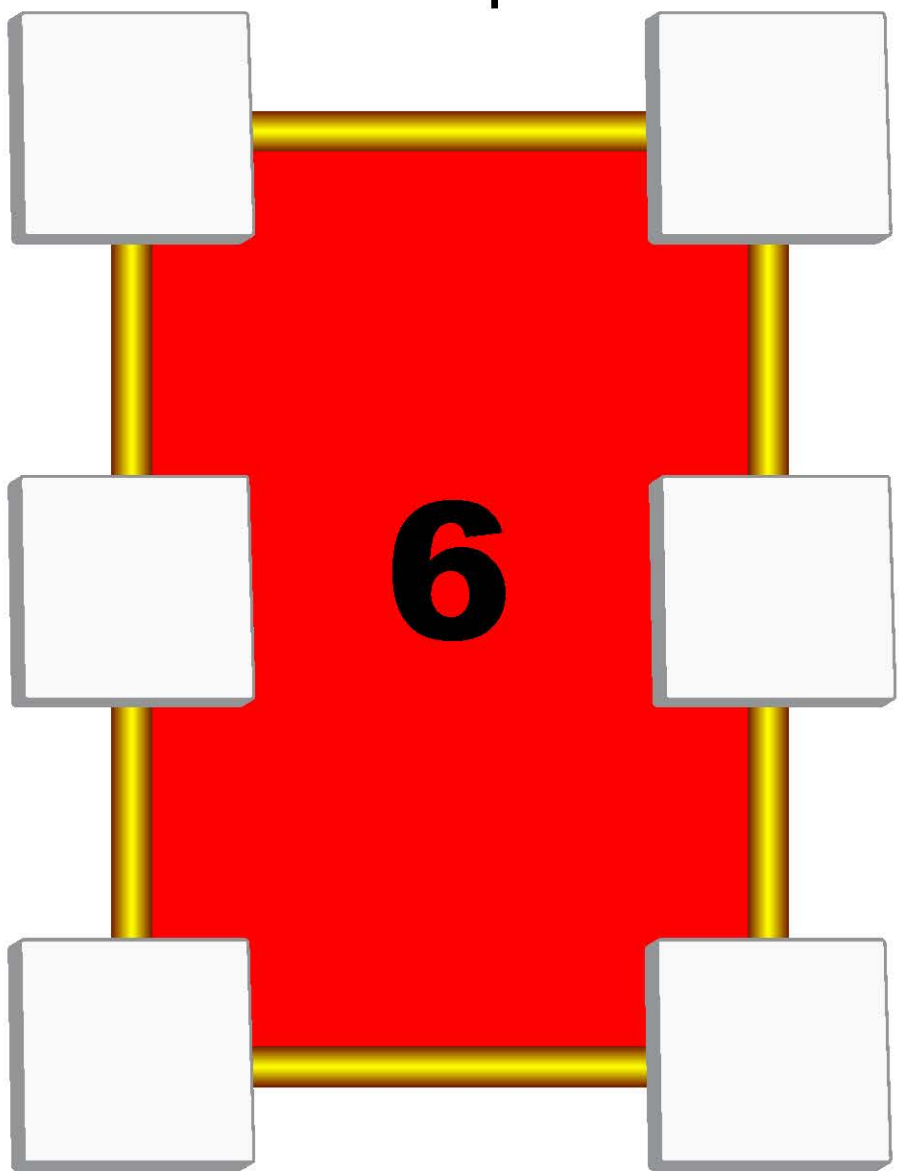
Chip Number Puzzle



Place these **NUMBER CHIPS**:

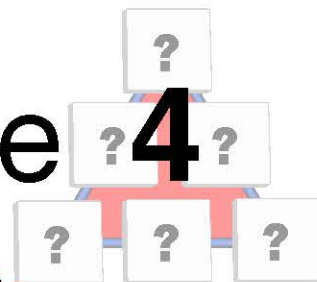


So that each line of squares adds up to **6**



There is **ALWAYS** a **PATTERN** in the corner numbers.

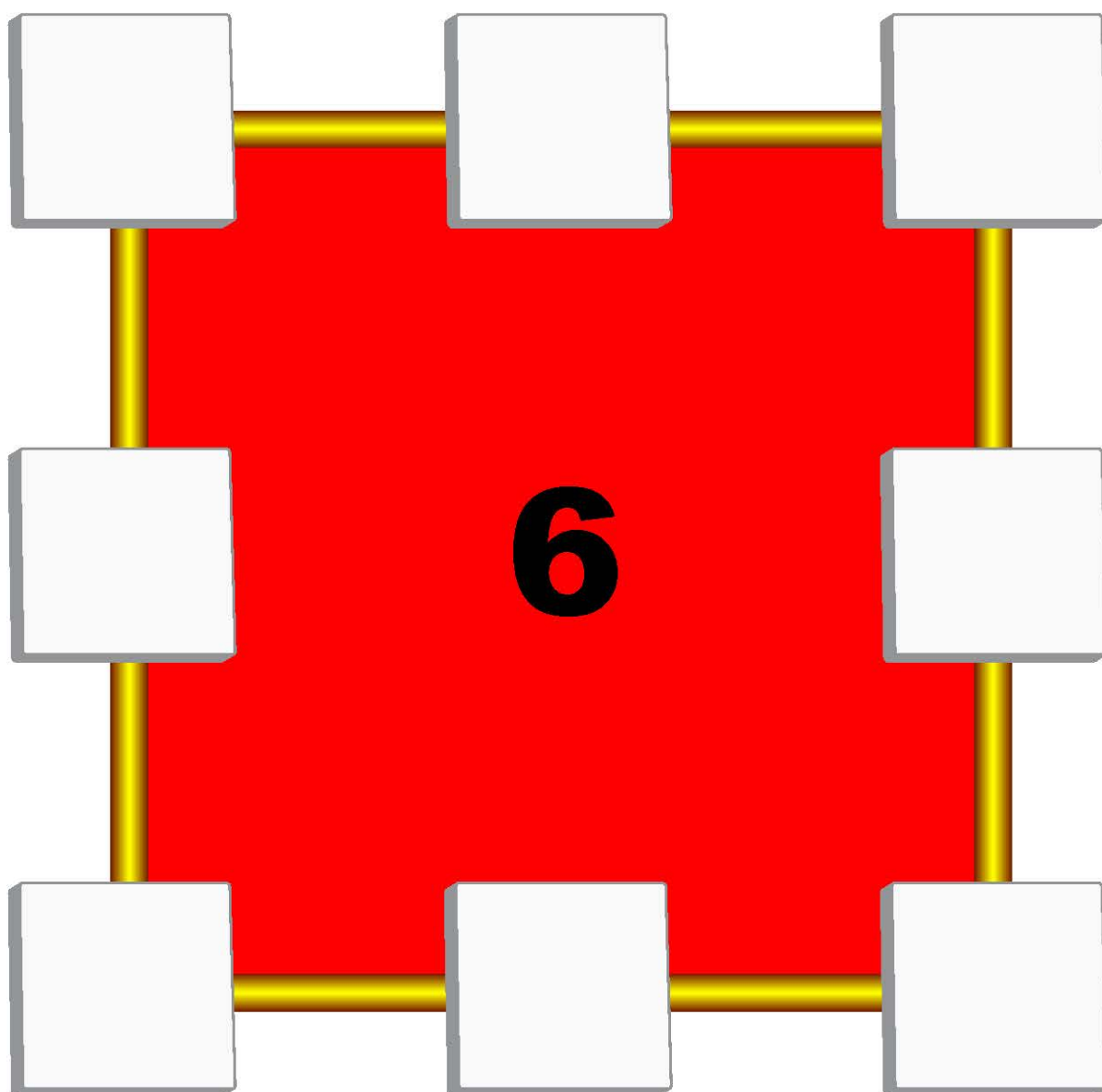
Chip Number Puzzle



Place these **NUMBER CHIPS**:

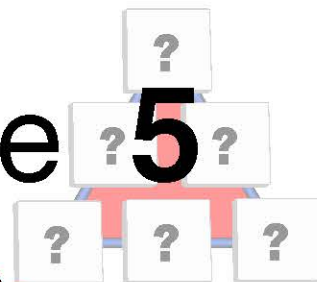
1 1 2 2 2 2 3 3

So that each line of squares adds up to **6**

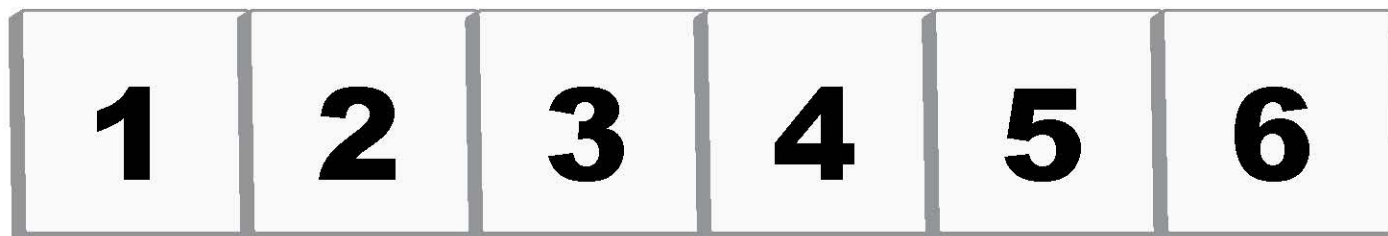


There is **ALWAYS** a **PATTERN** in the corner numbers.

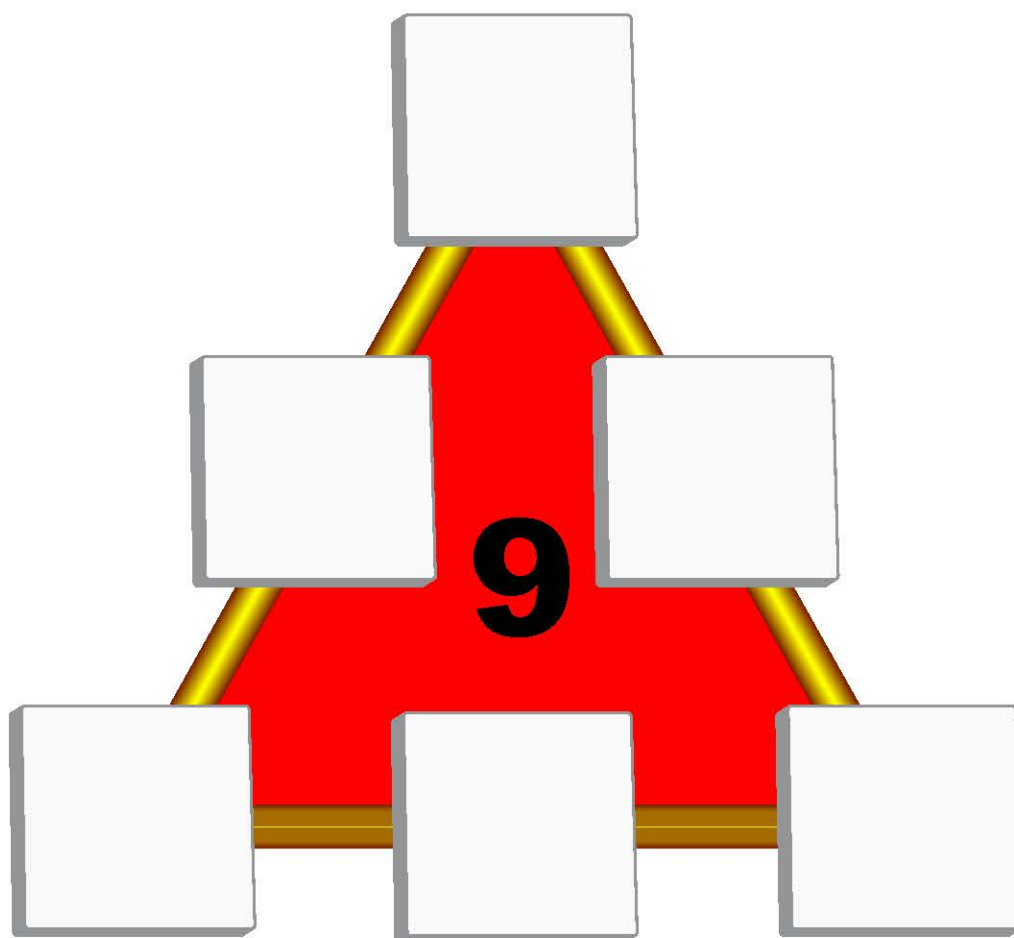
Chip Number Puzzle 5



Place these **NUMBER CHIPS**:

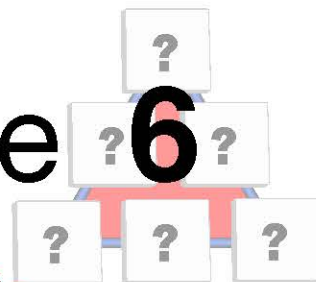


So that each line of squares adds up to **9**



There is **ALWAYS** a **PATTERN** in the corner numbers.

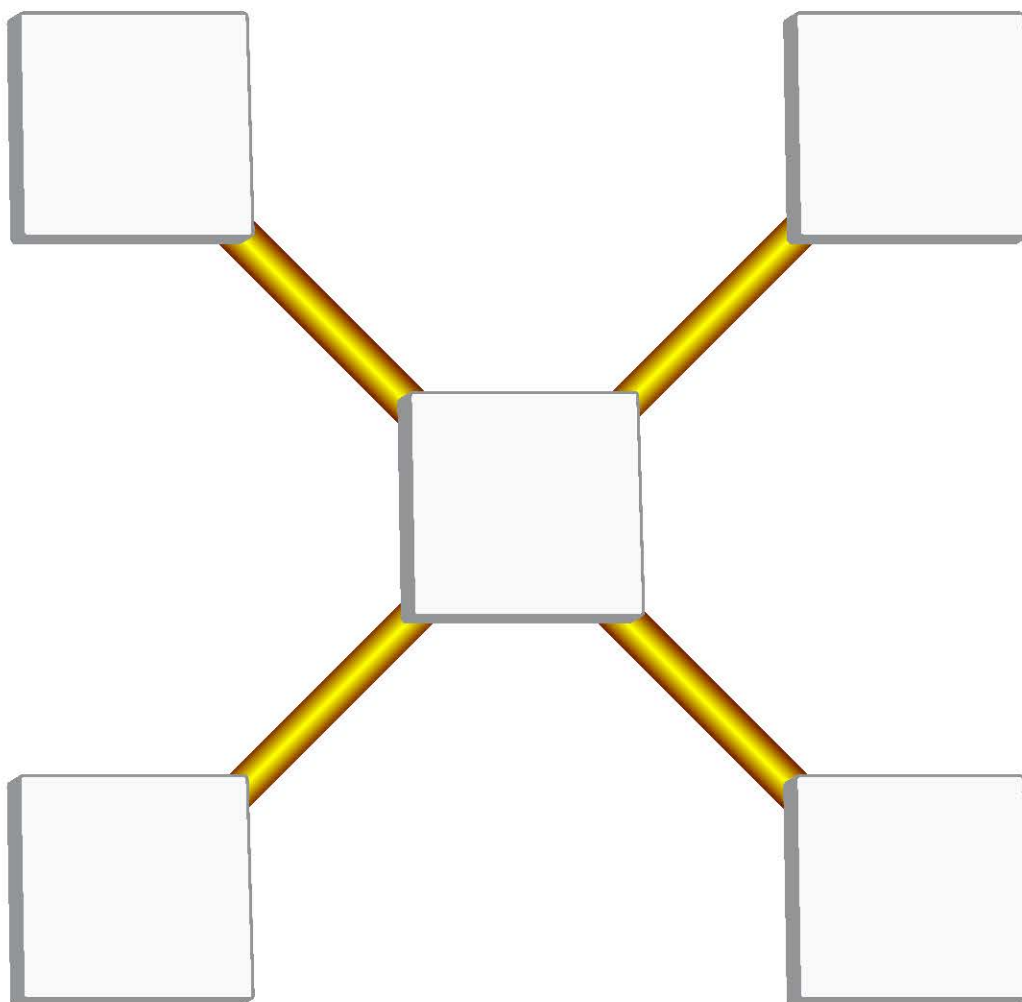
Chip Number Puzzle



Place these **NUMBER CHIPS**:

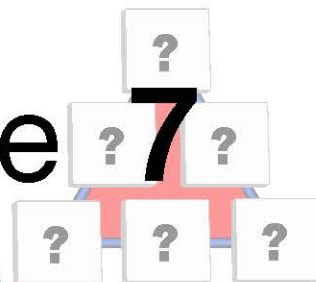


So that each line of squares adds up to **9**



There is **ALWAYS** a **PATTERN** in the corner numbers.

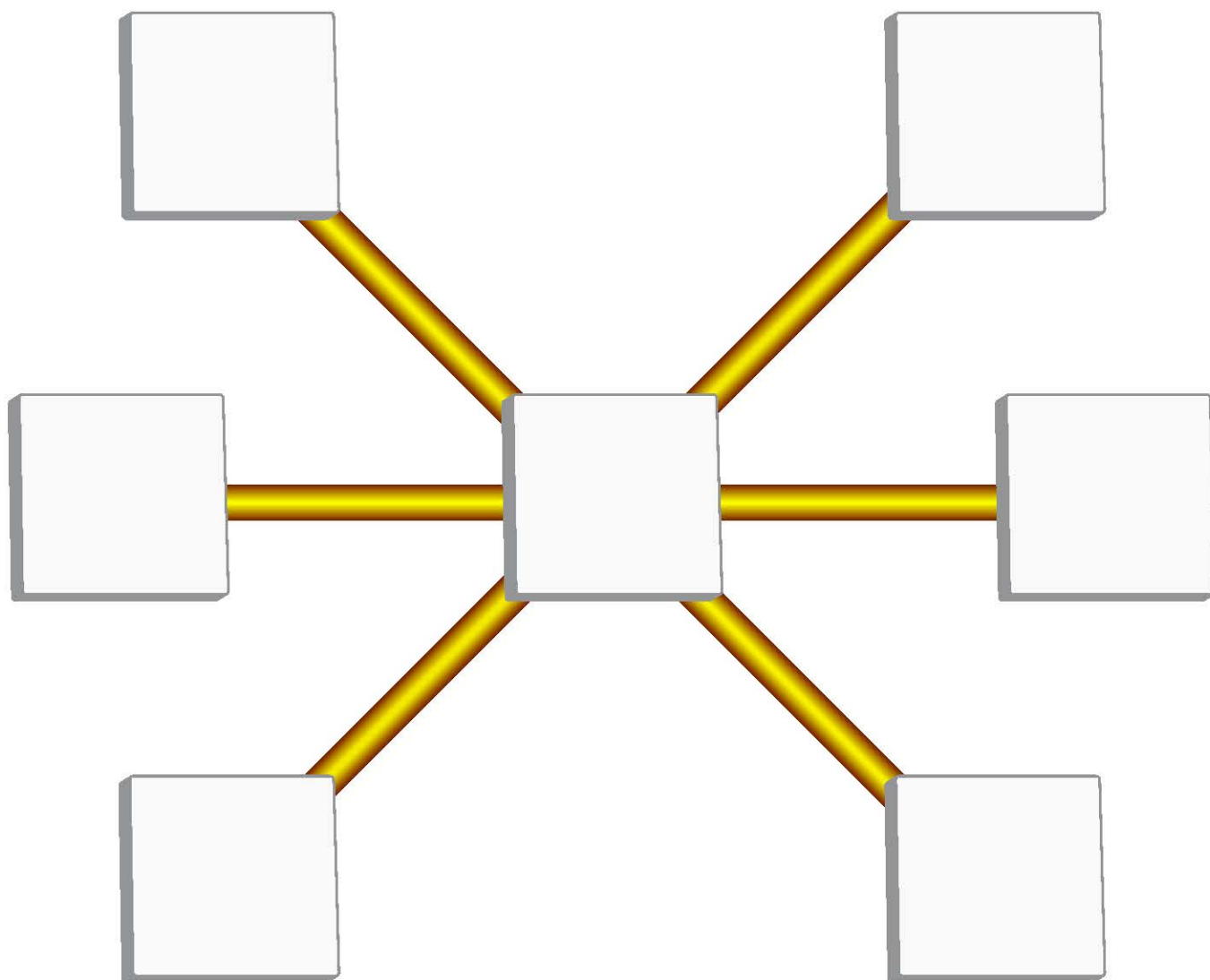
Chip Number Puzzle



Place these **NUMBER CHIPS**:

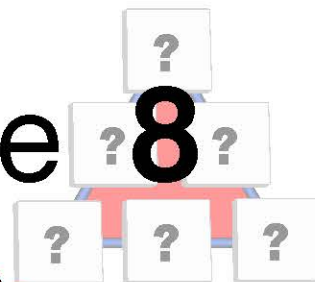


So that each line of squares adds up to **12**



There is **ALWAYS** a **PATTERN** in the corner numbers.

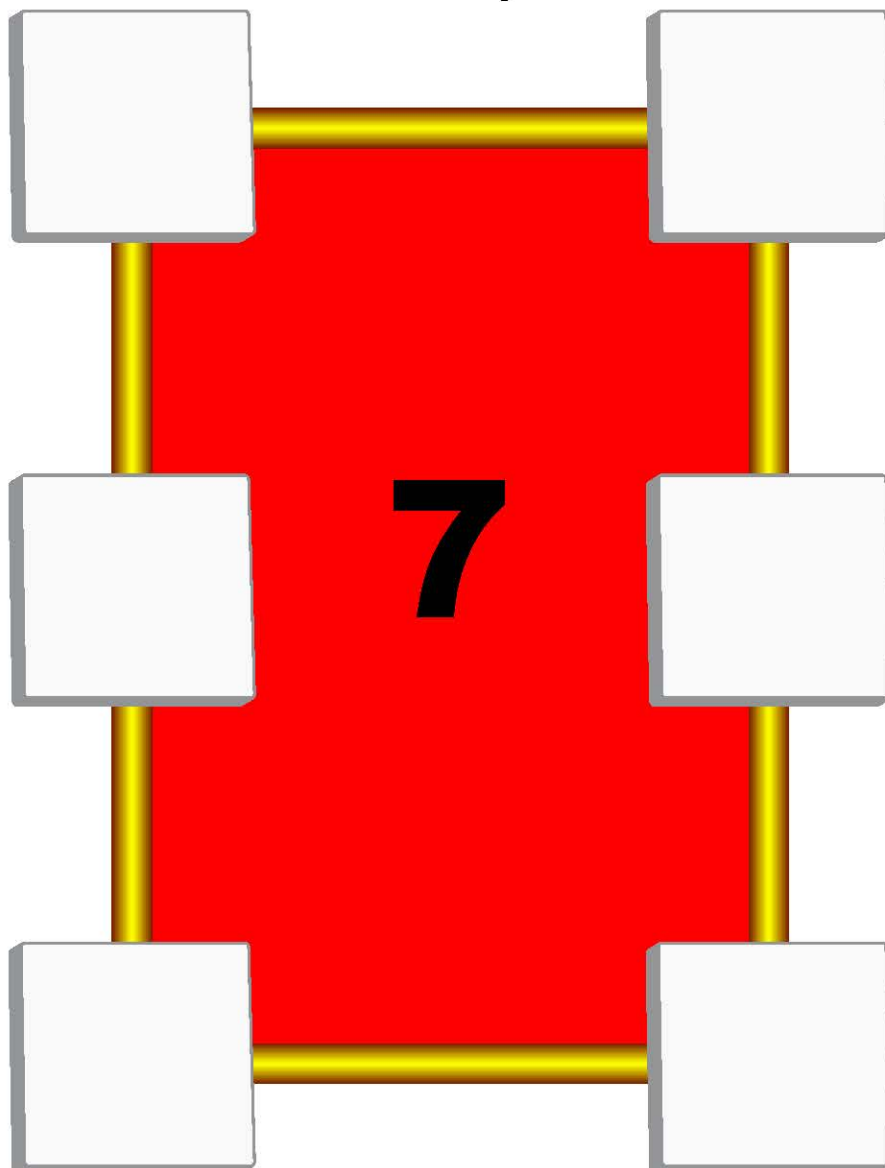
Chip Number Puzzle



Place these **NUMBER CHIPS**:

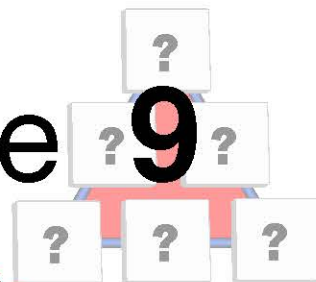


So that each line of squares adds up to **7**



There is **ALWAYS** a **PATTERN** in the corner numbers.

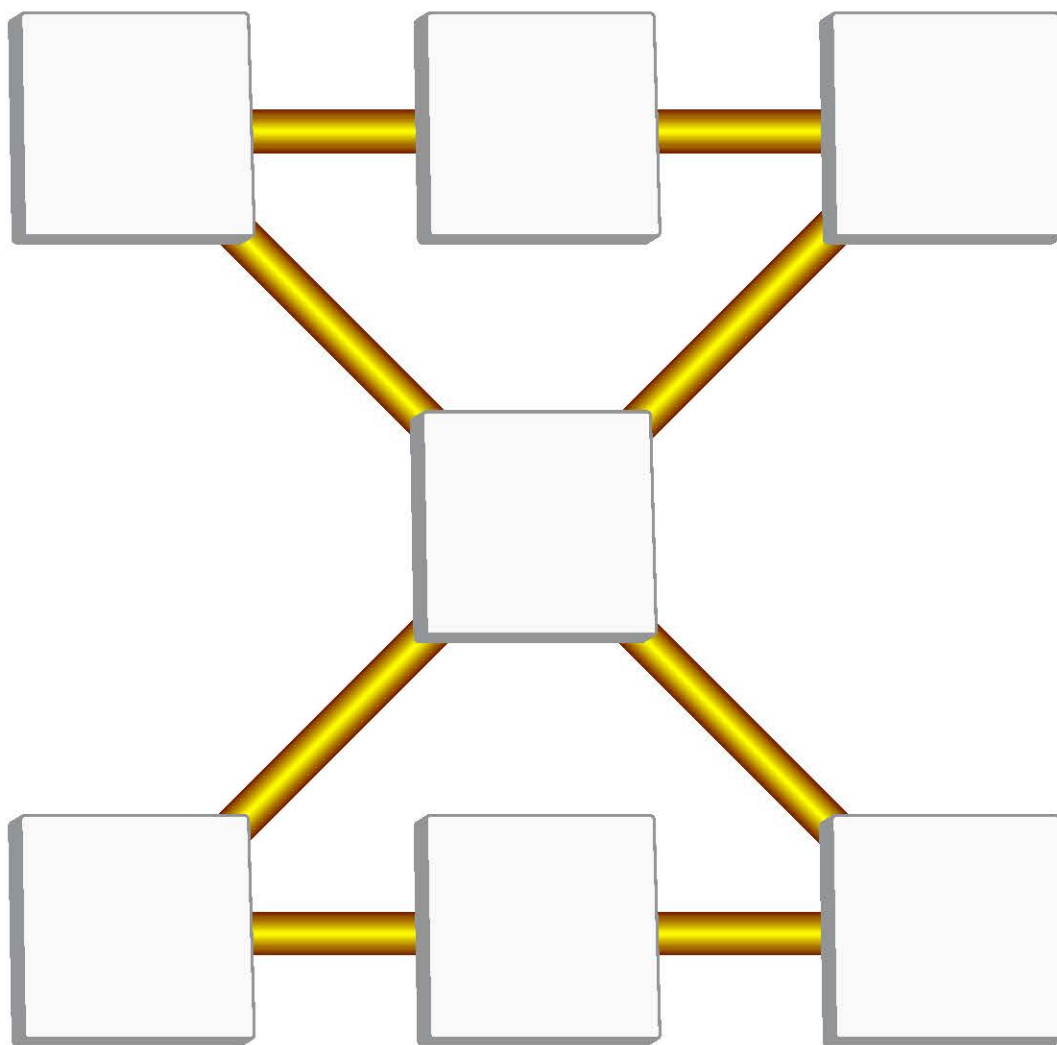
Chip Number Puzzle



Place these **NUMBER CHIPS**:

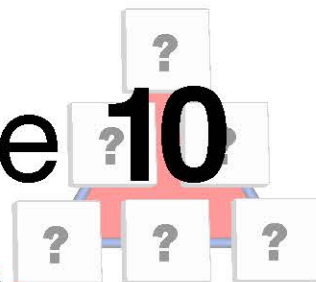


So that each line of squares adds up to **12**

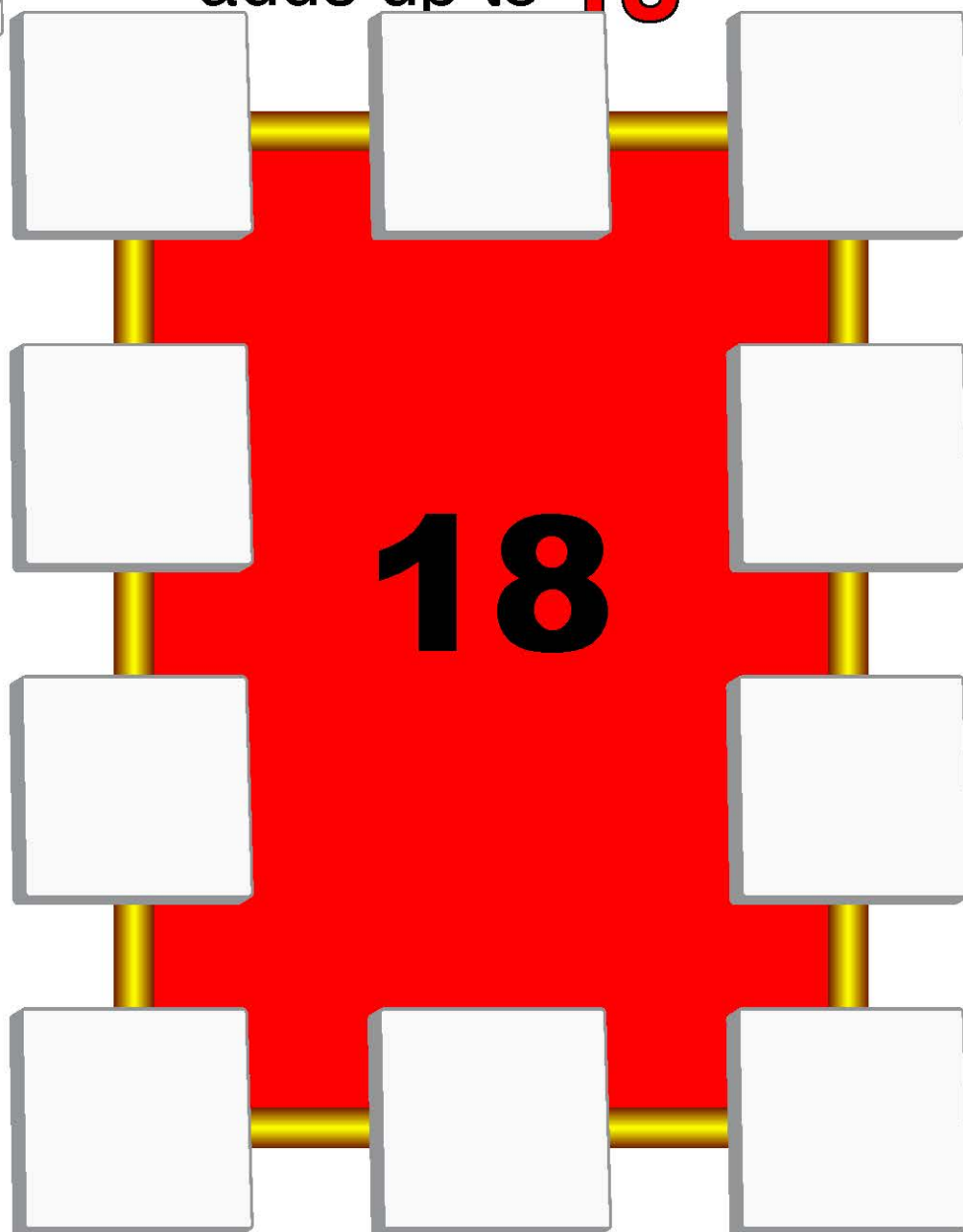
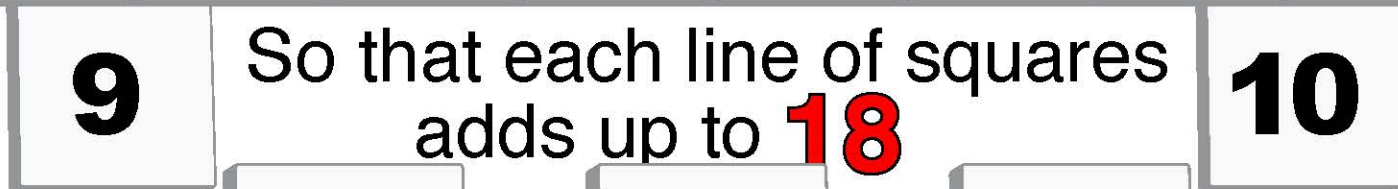


There is **ALWAYS** a **PATTERN** in the corner numbers.

Chip Number Puzzle 10

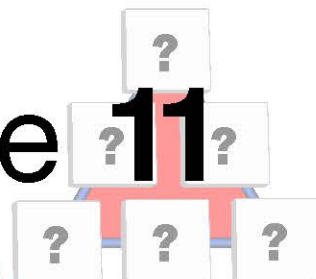


Place these **NUMBER CHIPS**:

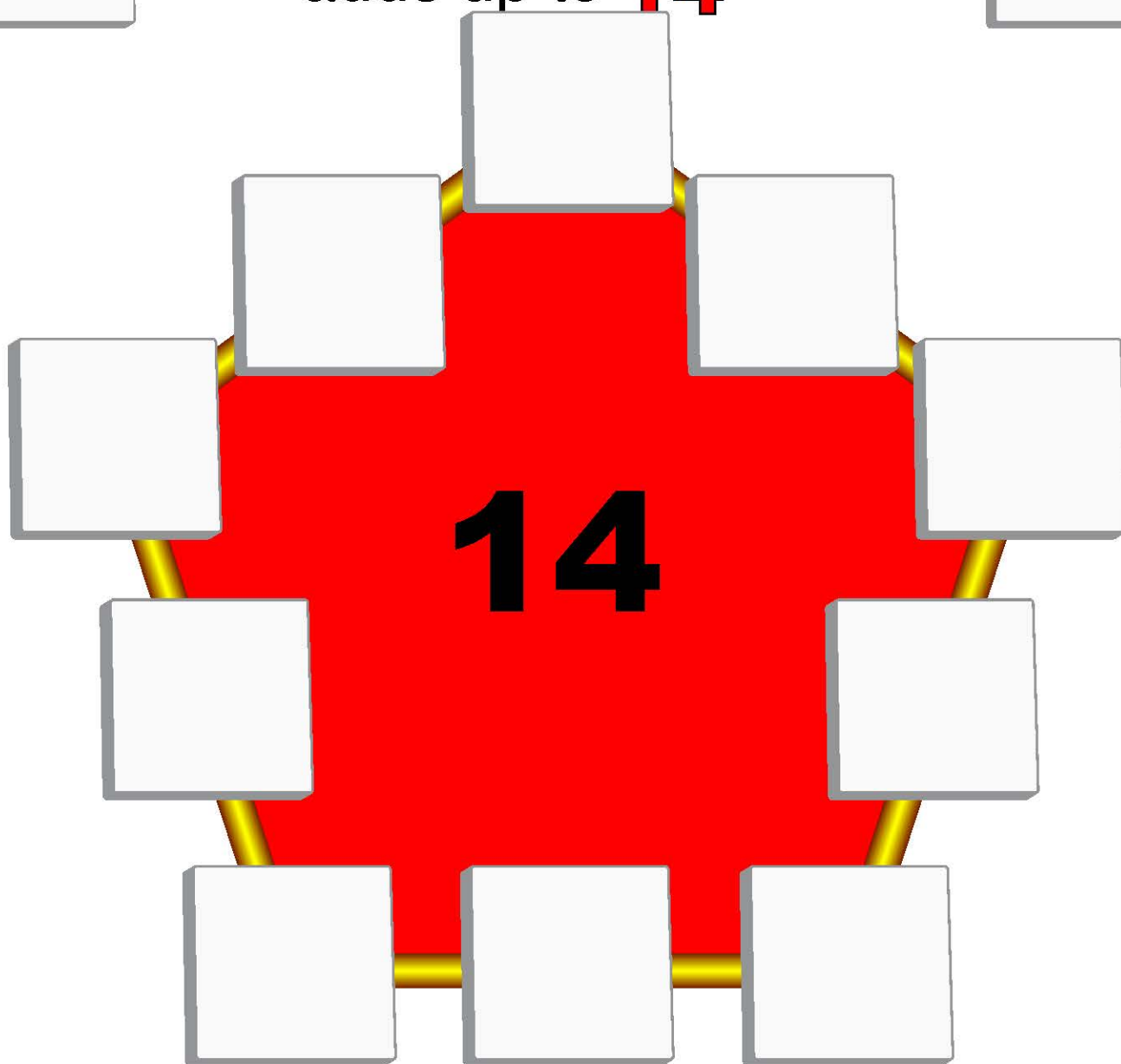
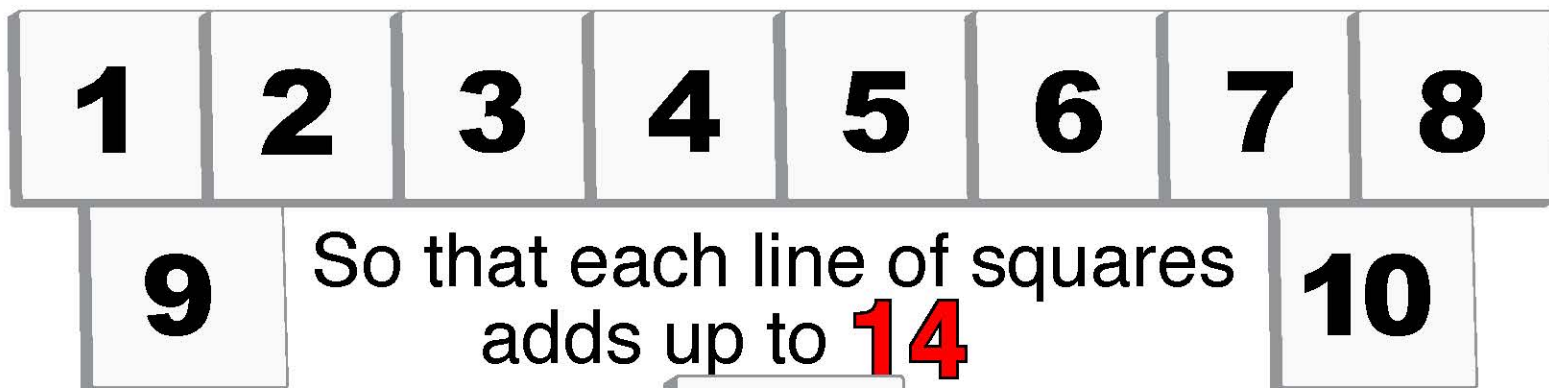


There is **ALWAYS** a **PATTERN** in the corner numbers.

Chip Number Puzzle

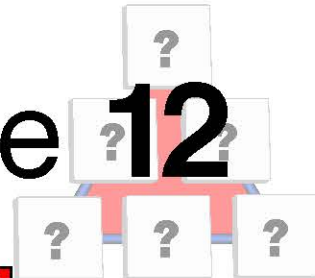


Place these **NUMBER CHIPS**:



There is **ALWAYS** a **PATTERN** in the corner numbers.

Chip Number Puzzle

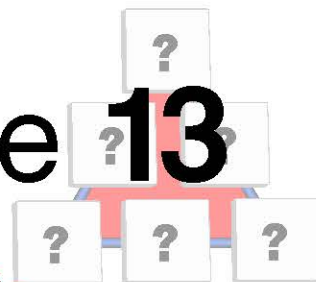


Place these **NUMBER CHIPS**:

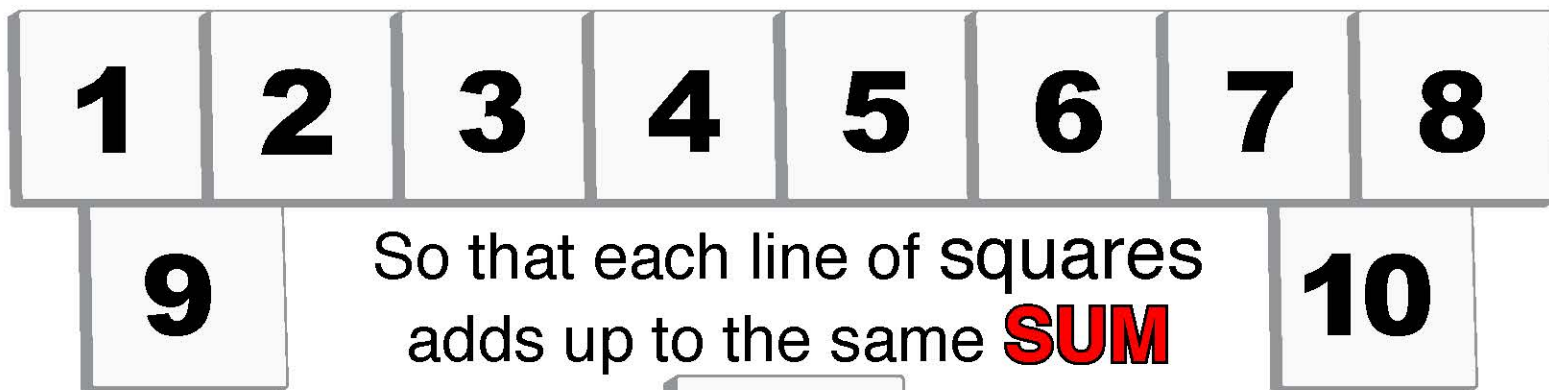


There is **ALWAYS**
a PATTERN in the
corner numbers.

Chip Number Puzzle

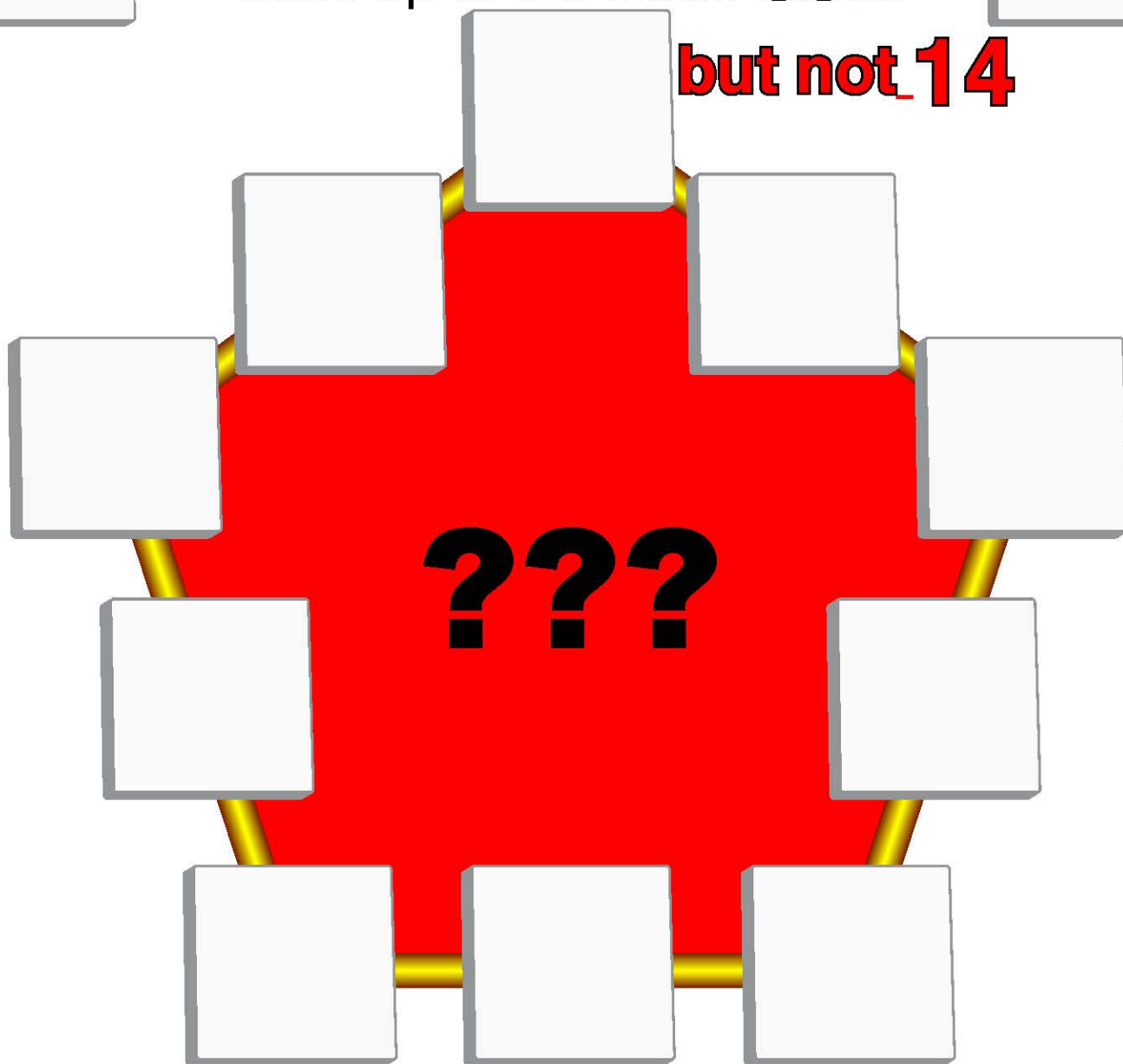


Place these **NUMBER CHIPS**:

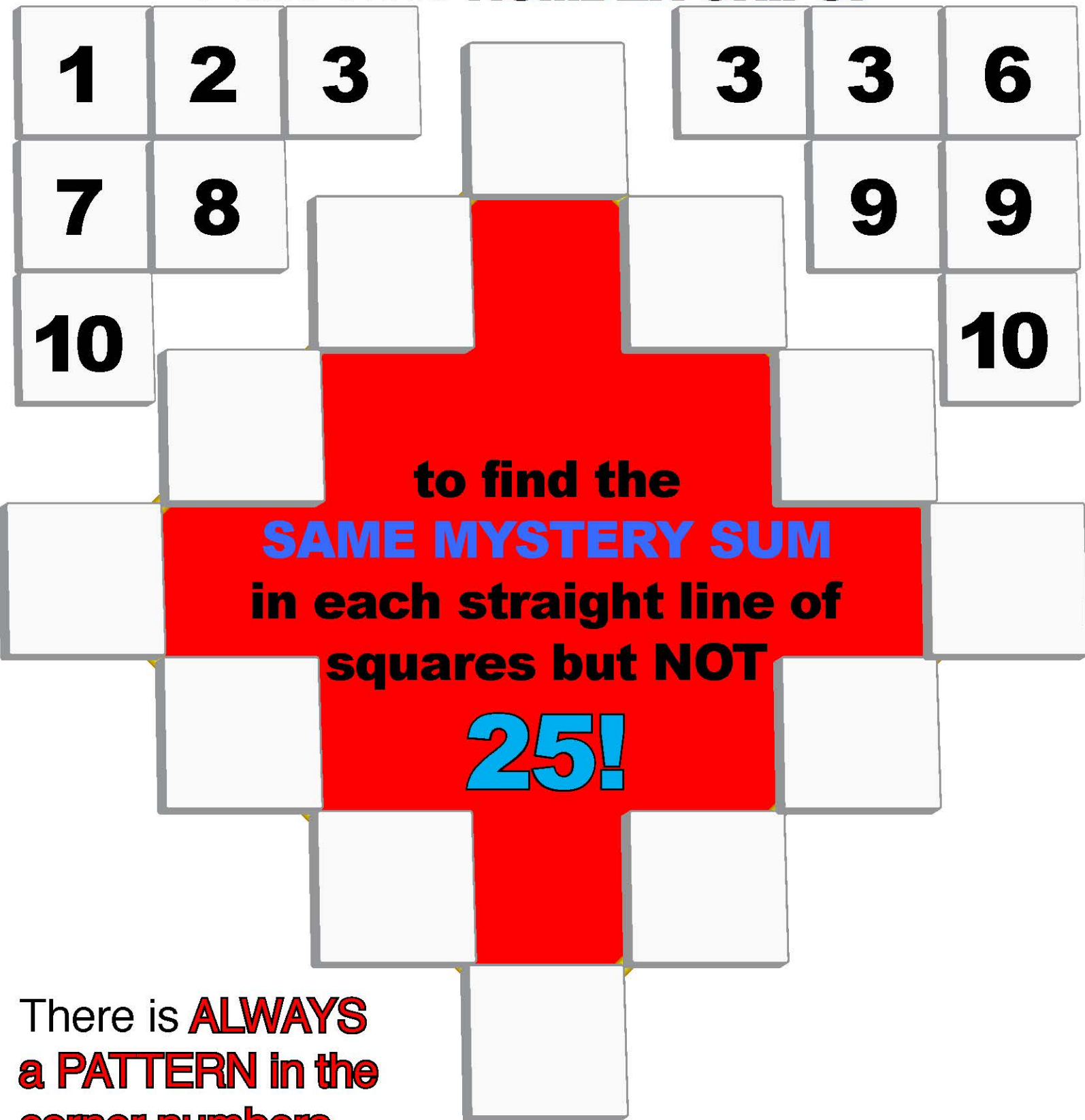


So that each line of squares
adds up to the same **SUM**

but not 14



There is **ALWAYS** a **PATTERN** in the corner numbers.



There is **ALWAYS**
a PATTERN in the
corner numbers.

Math Festival Standards Correlation

for the California COMMON CORE Standards in Mathematics



Date: 9/24/2013



Math Festival: Number 1, 2, 3, 4, 5, 6, 7, 8

Chip Number Puzzles Grade Span

Materials used with this activity:

- Task Cards in Sheet Protectors
- Chip number pieces (six baskets)

Comments:

While the first few puzzles are easy enough for 1st graders, the hardest tasks at this table are deceptively difficult and a real challenge to the brightest middle school students and adults!

Standard(s) for Mathematical Practice

- 1) Make sense of problems and persevere in solving them.
- 2) Reason abstractly and quantitatively.
- 7) Look for and make use of structure

Related K, 1, 2, 3, 4, 5, 6, 7, or 8th grade Standards:

CC: Counting & Cardinality **OA: Operations & Algebraic Thinking** **NBT: Number & Operations In Base Ten**
MD: Measurement & Data **G: Geometry** **NF: Number & Operations—Fractions** **NS: The Number System**
EE: Expressions & Equations **SP: Statistics & Probability** **RP: Ratio & Proportion Relationships** **F: Functions**

1.NBT.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

2.NBT.7.1 Use estimation strategies to make reasonable estimates in problem solving. CA

2.OA.2 Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one-digit numbers. Work with equal groups of objects to gain foundations for multiplication.

3.NBT.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.

4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.

6.EE.3 Apply the properties of operations to generate equivalent expressions.

8.EE.8 Analyze and solve simultaneous linear equations. Solve systems of two linear equations in two or more variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. Solve real-world and mathematical problems leading to linear equations in two or more variables.

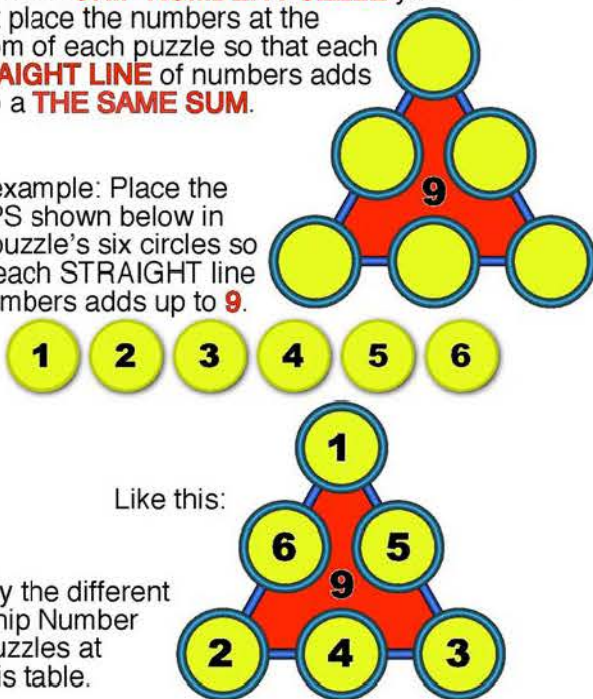


Station Title and Directions:

Chip Number Puzzles

In each **CHIP NUMBER PUZZLE** you must place the numbers at the bottom of each puzzle so that each **STRAIGHT LINE** of numbers adds up to a **THE SAME SUM**.

For example: Place the CHIPS shown below in this puzzle's six circles so that each STRAIGHT line of numbers adds up to 9.



Try the different Chip Number Puzzles at this table.

© Paul Giganti, Jr., 1/01/03

NUMBER FESTIVAL

Rompecabezas Del Número De la Virutas

En cada ENIGMA del NUMERO de la PASTILLA usted debe colocar los números en el fondo de cada enigma para que cada LINEA RECTA de números asciendan a una LA MISMA SUMA.

Por ejemplo: Coloque las PASTILLAS mostradas abajo en estos seis círculos de enigma para que cada línea recta de números asciendan a 9.

Como esto:

Pruebe los Enigmas diferentes del Número de la Pastilla en esta mesa.