



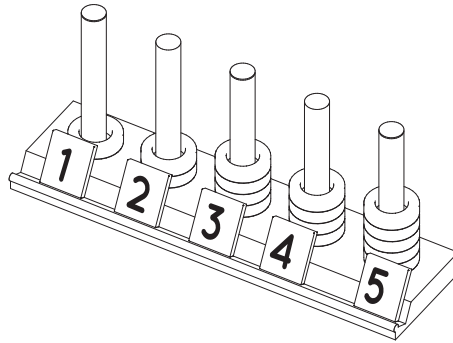
THE MATH PATH

provides an interactive format for teaching counting as well as mathematical equations

COUNTING GAMES:

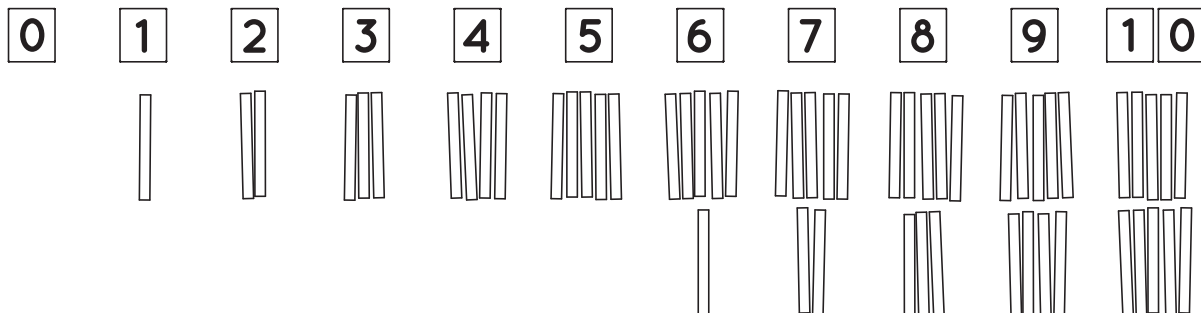
On the peg board:

Ask the child to pick out the number tiles from **1** to **5** and place them sequentially on the peg board. Then ask the child to pick out the corresponding number of counting rings and stack those behind each number: one ring behind the number **1** tile, two rings behind the number **2** tile, etc.



On the tabletop or floor:

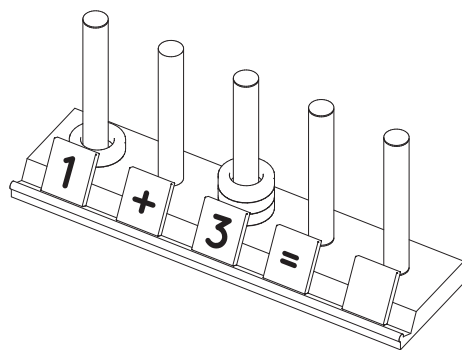
Place the number tiles face up on the floor, mix them up, and ask the child to pick out the tiles, laying them sequentially in a line from **0** to **10**. Next, the child should place the counting sticks behind each number corresponding to that number's value: one counting stick behind the number **1** tile, two counting sticks behind the number **2** tile, etc.



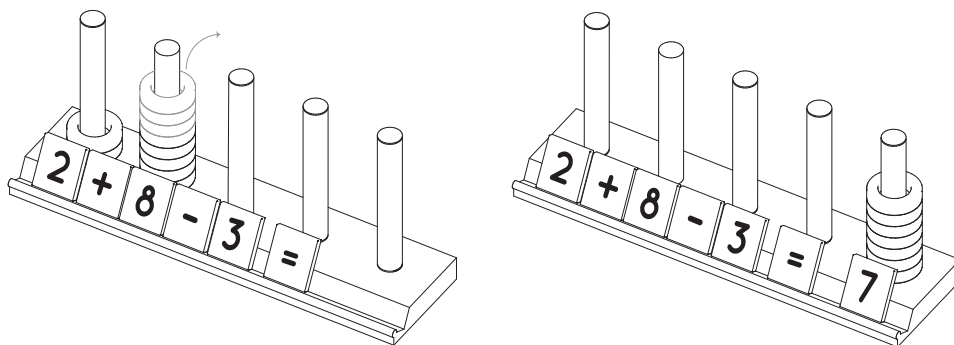
MATH GAMES:

On the peg board:

Using the number tiles, set up a simple addition/subtraction equation like : $1 + 3 =$, leaving the answer unfinished. Ask the child to place the corresponding rings behind the number tiles: one ring behind the number **1** tile and three rings behind the number **3** tile. Then ask the child to count the rings and solve the equation, filling in the answer with corresponding number rings and number tiles on the final peg.

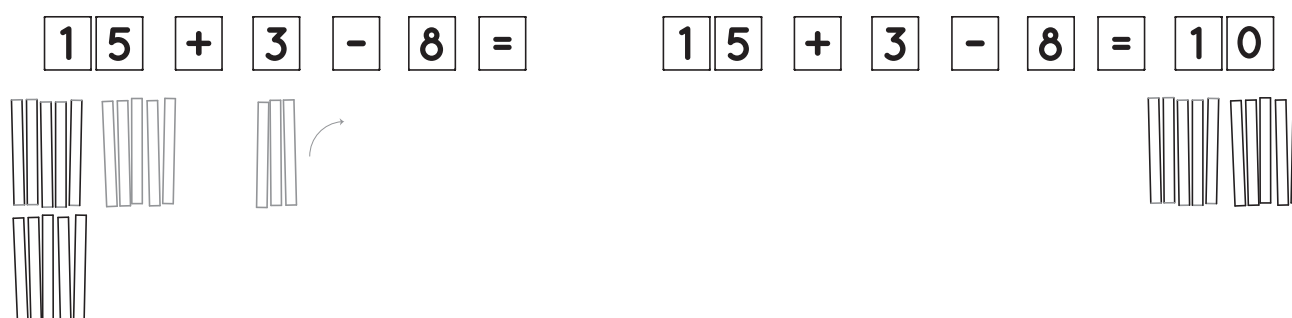


Once the child has mastered equations with two numbers, add in a third like: $2 + 8 - 3 =$, leaving the answer unfinished. As before, ask the child to place the corresponding rings behind the number tiles for the addition equation: two rings behind the number **2** tile and eight rings behind the number **8** tile. Then ask the child to remove three rings and count the remainder to solve the equation. Move the remaining rings to the final peg and place the number tile reflecting the answer (tile **7**) at the end of the peg board.

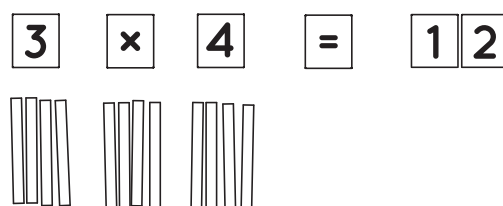


On the tabletop or floor:

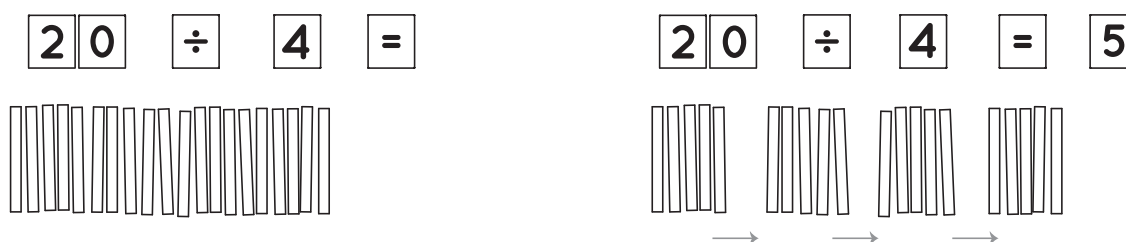
Path to Math includes 80 counting sticks which allows children to solve higher value and/or more complex equations than the peg board can hold. Using the number tiles on the tabletop or floor, set up a mathematical equation like: $15 + 3 - 8 =$, leaving the answer blank. Ask the child to place the corresponding number of counting sticks below the addition part of the equation: fifteen sticks below the **15** number tiles and three sticks below the number **3** tile. Using the sticks, demonstrate how adding a pile of sticks together and then taking away eight sticks reveals the answer. The child can finish the equation by moving the number sticks to the right of the equal sign and placing the appropriate number tiles (**10**) to provide the answer.



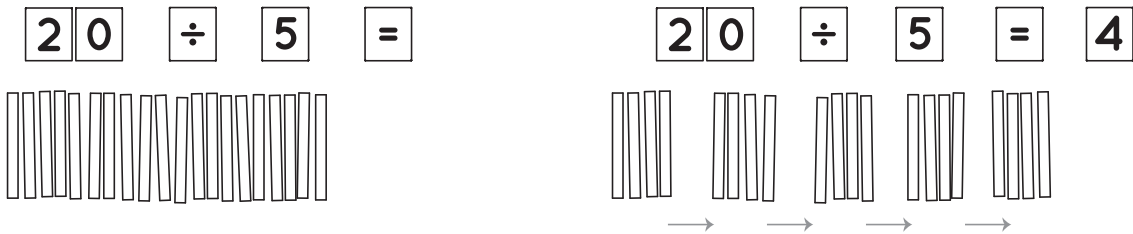
To demonstrate multiplication, set up a complete equation with the number tiles like: $3 \times 4 = 12$. Using the counting sticks, place three sets of four sticks under the number tiles and ask the child to count the total number of sticks. Explain how that total, **12**, is the answer and then fill in the solution to the equation with number tiles **12**. Next, just lay out a new multiplication equation with the number tiles and ask the child to configure the rows of sticks to solve for the answer.



Use Path to Math to show that division is breaking a number up into an equal number of parts. Using number tiles, set up the problem $20 \div 4 =$ and place twenty counting sticks underneath the problem. Then direct the child to divide the counting sticks into four equal groups. Ask the child how many sticks are in each group (**5**) and to then provide the answer at the end of the equation with the appropriate number tile.



Flip the equation above and show what happens when the goal is to divide twenty sticks into five equal groups.



It helps some children to demonstrate the concept of division by showing that it's the opposite of multiplication. Using number tiles and counting sticks, show that four groups of five counting sticks and five groups of four counting sticks both equal 20.

