

SUPERSTARS III

Pluto, I

Name: _____

(This shows my own thinking.)

- ★1. Remove the dime from the center position without touching it. Describe how to do it.



Answer: _____

- ★★2. There are six digits in a sequence -- two 4's, two 5's, and two 6's. There is one digit between the two 4's; there are two digits between the two 5's; and there are three digits between the two 6's. Write this sequence of numbers.

Answer: _____

- ★★★3. While at the park, I saw boys and dogs. Counting heads, I got 32. Counting legs, I got 104. How many boys and dogs were there?

Answer: ____ boys and ____ dogs



- ★★★★4. Mary bought some donuts. She gave $\frac{1}{2}$ her donuts and $\frac{1}{2}$ a donut to her mom. Then she gave away $\frac{1}{2}$ her remaining donuts and $\frac{1}{2}$ a donut to her aunt. Then she gave $\frac{1}{2}$ of her remaining donuts and $\frac{1}{2}$ a donut to her sister, Kathy. This left her with $\frac{1}{4}$ of a dozen donuts. How many doughnuts had she bought?

Answer: _____ doughnuts

- ★★5. Mr. Barnes is a lumberjack. Using his power saw, he can cut a log into 5 pieces in 6 minutes. How long would it take him to cut the log into 7 pieces?

Answer: _____ minutes

★★★★6. Five people are going to be seated in a row of seven chairs.
How many different ways can they be seated?

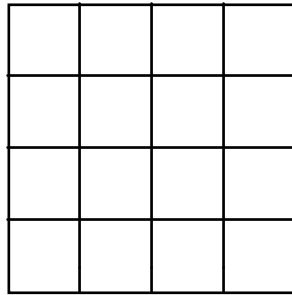


Answer: _____ ways

★7. Add one line to make this statement true: $1 + 1 + 1 = 110$

★★★8. Put the following numbers into the grid so that no single digit appears more than once in any row, column, or main diagonal.

10, 12, 13, 21, 34, 38, 40, 47, 50, 53, 57, 64, 65, 78, 89, 98



★★★9. Fill in the missing number:

2, 8, 27, 85, 260, _____, 2365

★★★★10. The numbers in the triangle follow a certain pattern. Figure out the pattern and calculate the numbers that would replace the boxes. Write them inside each box.

