

# Number Puzzles

NCTM Standards 1, 2, 6, 7, 8, 9, 10

- 1 Complete the chart.

	Think of a whole number between 0 and 10.	Multiply by 9.	Add the digits in your product.
A			
B			
C			
D			
E			
F			
G			
H			
I			

- 2 What do you notice?

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- 3 Can you think of any numbers that don't follow this pattern?

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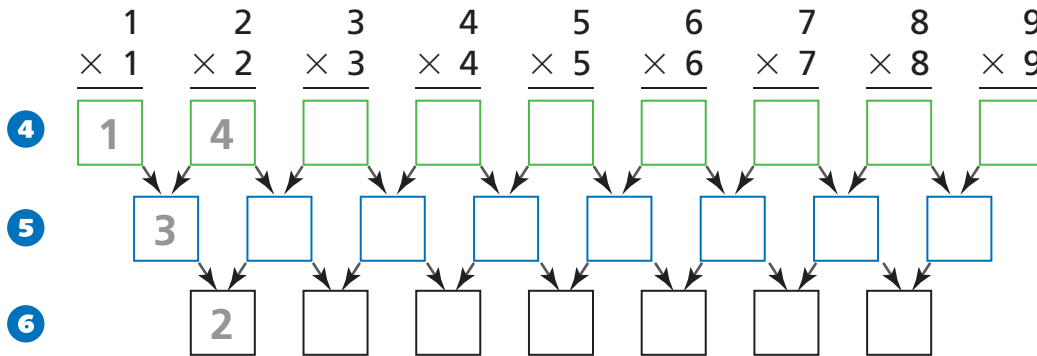


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As you complete this puzzle, look for patterns. The number in each blue box is the difference between the numbers in the green boxes above it. The number in each black box is the difference between the numbers in the blue boxes above it.



7 Describe the pattern in row 4.

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8 Describe the pattern in row 5.

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9 **Challenge** Two fourth-grade classes have the same number of students. Each student in these classes made a card for his or her first-grade buddy. One of the teachers also made a card. In the end, there were 49 cards. How many students are in each of the fourth-grade classes? Explain your answer. \_\_\_\_\_ students

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