



**Julia Robinson  
Mathematics  
Festival**



# **Cat, Dog, and Mouse Magic**

## **A Mind-Reading Number Trick**

Inspired by William Wallace  
Adapted by Nancy Blachman  
Designed by Freddy Bendekgey

**Magic Card Trick (Not a CD)**

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# Cat, Dog, and Mouse Magic




A Mind-Reading Number Trick




By William Wallace

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## Instructions

Ask someone, whom I'll call Rowan, to choose a secret number between 0 and 80. Display one of the four cards with the numbers 0 - 80 and ask Rowan to tell you the color (blue, green, or red) or the animal (cat , dog , or mouse ) with the secret number. Repeat this procedure with the other three cards. Then tell the audience Rowan's secret number.

Method: Calculate the secret number as follows: Start off with the number 0 in your head. If Rowan specifies **blue** (cat ) , **green** (dog ) or **red** (mouse ) , find the smallest **blue** (cat) or **green** (dog) number on the card, and add that number to the sum in your head. Don't add anything if **red** (mouse) is specified. Repeat this procedure for the next three cards. After the 4th card, the sum is the secret number!

Example: Suppose the player chooses the number 42.

- On card 1, the number 42 is **green** (dog) and the smallest **green** (dog) on that card is 27. So start with 27 as the number in your head.
- On card 2, the number 42 is **green** (dog) and the smallest **green** (dog) number on card 2 is 9. So add 9 to the sum in your head to get 36.
- On card 3, the number 42 is **blue** (cat) and the smallest **blue** (cat) number on card 3 is 6. So add 6 to the total in your head, making the total in your head 42.
- On card 4, the number 42 is **red** (mouse), in which case, don't add anything. So the number in your head remains 42, the secret number!



Updated on 12/12/25 \* For other mathematical activities, games, puzzles, and magic tricks, visit [jrmf.org](http://jrmf.org). This trick is licensed under a Creative Commons Attribution License, which lets you distribute, tweak, and build upon these cards as long as you credit [jrmf.org](http://jrmf.org) for the animal version of this trick.







