

DOMINO MAGIC

Math skills: Addition and multiplication
You will need: A box of dominos; a calculator
Difficulty level: 2

Introduction: Tell your students that it is possible to do math problems in your head faster than with a calculator.

What to do: Ask a student to choose one domino (without a blank space), show it to the class (without showing it to you) and ask them to do the next steps on their calculators:

- ◆ Multiply one of the numbers by 5
- ◆ Add 7
- ◆ Multiply the result by 2
- ◆ Add the other number on the domino
- ◆ Ask your volunteer to write the answer on the board
- ◆ You write the 2 numbers on the original domino on the board!

How it works: Each domino has two numbers A and B, which can each have any of the following values: 1,2,3,4,5 and 6.
Let's say that the chosen domino had the numbers 5 and 2, and the student chose the number 5.

- ◆ Multiply A by 5: $5A$
- ◆ Add 7: $5A + 7$
- ◆ Multiply by 2: $(5A + 7) \times 2 = 10A + 14$
- ◆ Add B: $10A + 14 + B$
- ◆ Subtract 14: $10A + 14 + B - 14 = 10A + B$

Why it works:

Since A and B are both units, $10A$ will be a ten and B will be a unit. Therefore, A and B can be determined. *(Note that this procedure also works with blanks or when A and/or B are zero.)*