



# PUZZLING CARTOON

## - MARBLES TWO BY TWO -



### Educational Goals

- ❖ Develop logic
- ❖ Highlight the playful potential of mathematics
- ❖ Raise consciousness about implicit constraints

### Key Features of the Targeted Competency

- ❖ To define the elements of the mathematical situation
- ❖ To mobilize and apply concepts and processes appropriate to the given situation
- ❖ To justify actions or statements by referring to mathematical concepts and processes

### Concepts Used

- ❖ Arithmetic (subtraction)
- ❖ Counting

### Materials

- ❖ Video of the puzzle
- ❖ Sheets of paper
- ❖ Pencils
- ❖ Written copies of the puzzle (optional)

### Targeted Academic Level

Grades 7-8

### Mathematical Field Concerned



### Suggested Teaching Formula



### Time Required

Approximately 17 minutes



# SUGGESTED PROCESS



## **Step 1: Introduction** (3 minutes)

Present the video of the puzzle a first time ([www.amazingmaths.ulaval.ca](http://www.amazingmaths.ulaval.ca)).

A written version of the puzzle is available via the Explanation Sheet. If you believe it is necessary, you can project it or distribute copies to your students.

Present the video a second time to allow the students to thoroughly understand the information.

## **Step 2: Finding the solution** (10 minutes)

Place the students in pairs so they can try to find the solution. Encourage the students to write down all the elements of information given by the affirmations.

You can guide the students by suggesting to them to find the different numbers of marbles that they can have if no one has more marbles than Vincent Matt, then by drawing their attention on the number of students.

## **Step 3: Reveal the solution** (5 minutes)

Refer to the Explanation Sheet for the puzzle “Marbles Two by Two”.