



# PUZZLING CARTOON

## -LILY'S MARBLES-



### Educational Goals

- ❖ Develop logic
- ❖ Skip count
- ❖ Add new terms to a sequence of which at least the first three terms are given

### 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 (addition and subtraction)
- ❖ Skip counting

### Materials

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

### Targeted Academic Levels

Grades 1 to 4

### Mathematical Field Concerned



### Suggested Teaching Formula



### Time Required

Approximately 30 minutes



# SUGGESTED PROCESS



## Step 1: Introduction (5 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. You can pause on the image *Remember* so the students can see the important elements of the puzzle.

## Step 2: Finding the solution (15 minutes)

Place the students in pairs so they can try to find the solution. Provide them with a sheet so they can write down their calculations and make several attempts.

Draw the students' attention on the 3 numbers given in the puzzle. If the students encounter some difficulties, ask them questions such as:

- Are the three numbers identical?
- How can we get to the 7<sup>th</sup> Monday?
- Can the first three numbers give us a hint to find the solution?
- What is the difference between each of these numbers? In the question, what do we mean by "if she maintains that pace [...]?"

Encourage the students to make calculations and to note on their sheet their discoveries. Suggest to them to place the numbers one after the other like a sequence.

## Step 3: Reveal the solution (10 minutes)

Refer to the Explanation Sheet for the puzzle "Lily's Marbles". Ask each team to share the answer they found and to explain their reasoning. Once a few teams explained their solution, explain the one in the Explanation Sheet.