PUZZLING CARTOON

- THE RINGS -

Educational Goals

- Develop logic
- Highlight the playful potential of mathematics
- Develop numerical strategies using the factorization of natural numbers in different ways

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 (division)
- Cognitive and metacognitive strategies

Materials

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

Targeted Academic Levels
Grades 7 to 11

Mathematical Field Concerned

Suggested Teaching Formula

Time Required
Approximately 20 minutes

SUGGESTED PROCESS

Step 1: Introduction (3 minutes)

Present the video of the puzzle a first time (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 (12 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 their thought process by mentioning that it is not necessarily efficient to divide the number of rings in two. You can then ask them if we obtain information only on the weighed rings when we use that type of scale.

Step 3: Reveal the solution (5 minutes)

Refer to the Explanation Sheet for the puzzle “The Rings”.