

Puzzling cartoon

– The Market –



Educational Goals

- Develop logic
- Highlight the playful potential of mathematics
- Understand the process of gains and trades
- Use of addition

Key Features of the Targeted Competencies

- To decode the elements of the situational problem
- To define the elements of the mathematical situation
- To mobilize mathematical concepts and processes appropriate to the given situation

Concepts Used

- ✤ Arithmetic (addition)
- Exchanges

Materials

- Video of the puzzle
- Numeric table
- Pen and paper
- Scissors
- Appendix 1



Mathematical Field Concerned



Suggested Teaching Method



Time Required Approximately 35 minutes







Suggested Process



Step 1: Introduction (3 minutes)

Present the puzzle a first time.

You can also choose to play the puzzle's video (<u>www.amazingmaths.ulaval.ca</u>).

To allow your students the opportunity to properly understand the information and instructions, present the puzzle, or the video, a second time.

You can also pause the video on the last image (before the question mark appears). This image indicates the different trade possibilities. You can leave this image on the board as a reference for your students.

A written version of the puzzle is also available via the Explanation Sheet. If you believe it is necessary, or that it would be helpful, project the puzzle's instructions on the board or pass copies to your students.

Step 2: Find solutions (17 minutes)

Place the students in pairs and ask them to try to find the solution. Encourage your students to write down the information obtained from the problem's statements.

You may guide your students by bringing their attention to the fact that, with the initial pumpkin, there is only one possible trade option. Therefore, you can suggest them to start with this step. Remind your students that, to get the answer, several exchanges can be done.

Provide your students with Appendix 1 so that they can cut out the products that can be traded. Encourage your students to exchange the products among themselves. This will allow them to see the different trade possibilities that can be done.

Step 3: Share solutions (10 minutes)

On the board, do the different trade possibilities with your students.

Ask teams to share the solution they found, to explain how they found the solution, and the reason they did specific exchanges. Ask if other teams found the same solution by using different strategies.

Step 4: Solve the puzzle (5 minutes)

If the students were initially unsuccessful in solving the puzzle, they may want time to solve it now that they have seen the solution.

Appendix 1



