



PUZZLING CARTOON

- BENJAMIN'S TRIP -



Educational Goals

- ❖ Develop logic
- ❖ Highlight the playful potential of mathematics
- ❖ Calculate the distance of a route by interpreting a legend and by converting the measurements

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

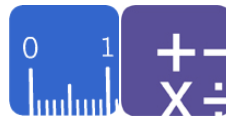
- ❖ Measuring distance
- ❖ Measurement conversion
- ❖ Legend reading
- ❖ Arithmetic (addition and subtraction)

Materials

- ❖ Video of the puzzle
- ❖ Sheets of paper
- ❖ Marker pens
- ❖ Ruler
- ❖ Appendix 1
- ❖ Written copies of the puzzle (optional)

Targeted Academic Level
Grades 5-6

Mathematical Fields Concerned



Suggested Teaching Formula



Time Required
Approximately 25 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. Pause on the last image where we can see the instructions.

Step 2: Finding the solution (17 minutes)

Place the students in teams of four so they can try to find the solution. Supply each team with the route in the appendix. Encourage the students to use marker pens and draw the possible paths on the route.

You can guide the students by asking them to observe and try to understand why some paths work and others do not. Ask them to identify the features of each path they drew. They can then try to identify the features of the paths that work. Encourage to students to check they found all the possible routes.

Once the routes have been found, the students must identify the shortest route using a ruler. To do that, they can measure the distance between each stop. Measuring the legend, convert the measurements of the route on the map to calculate the distance covered by Benjamin.

Step 3: Reveal the solution (5 minutes)

Explain to the students the features that make only two routes work. Come back on the legend reading and the measurement conversion.

-Visit every shop in only one path.
-Never use the same path more than once.

- Never use the same path more than once.