



ACTIVITY

- PENTOMINOES -



Educational Goals

- ❖ Highlight the playful potential of mathematics
- ❖ Observe and create regularities with geometrical figures

Key Features of the Targeted Competency

- ❖ To mobilize mathematical concepts and processes appropriate to the situation
- ❖ To apply mathematical processes appropriate to the situation

Concepts Used

- ❖ Perimeter
- ❖ Area
- ❖ Rectangle
- ❖ Tiling

Materials

- ❖ “Pentominoes” Explanation Sheet
- ❖ “Pentominoes” Activity Sheet (one copy per student)
- ❖ Pencils
- ❖ Graph paper
- ❖ Ruler
- ❖ Scissors
- ❖ Commercial pentominoes (optional)

Targeted Academic Levels
Grades 3 to 6

Mathematical Field Concerned



Suggested Teaching Formulas



Time Required
Approximately 50 minutes



SUGGESTED PROCESS



Step 1: Introduction (5 minutes)

Explain to the students that pentominoes are arrangements of 5 squares and inform them that the three activities use pentominoes. The third activity is a challenge and it would be normal for them to encounter more difficulties.

Step 2: Doing the first two activities (25 minutes)

Distribute graph paper to the students and ask them to recreate and cut out the pentominoes to help them in the activities to come. You will find in the appendix a representation of the 12 pentominoes. You can also use commercial pentominoes if you have them.

Give a few minutes to the students so they can answer the first two questions.

Step 3: Reveal the solutions for the first two activities (5 minutes)

Refer to the “Pentominoes” Explanation Sheet to confirm the students’ solutions.

Step 4: Challenge (15 minutes)

The third activity is rather difficult and has several solutions. You can give clues to the students by revealing where a piece is, one at a time. We suggest making a list of the students who succeeded with 0, 1, 2, 3 clues and display it in the classroom. Since there are several solutions, it will be possible for the students to get better.

Appendix

