

Area & Perimeter of Polygons

Name: _____ Date: _____

LEARNING OBJECTIVE

The student will measure a real room or object and calculate its area and perimeter, including for irregular polygon shapes.

MATERIALS NEEDED

- Measuring tape or ruler
- paper
- pencil
- calculator (optional)

HANDS-ON ACTIVITY

1. Choose a real rectangular space to measure (a room, a rug, a table top, a bedroom floor) and measure its length and width in feet or inches using a measuring tape.
2. Calculate the area (length x width) and perimeter ($2 \times \text{length} + 2 \times \text{width}$) of the space, showing your work.
3. Find or create an L-shaped space (e.g., a room with a closet nook, or draw one on paper) and measure or assign dimensions to each section.
4. Split the L-shape into two rectangles, calculate the area of each rectangle separately, and add them together to find the total area.
5. Draw a labeled diagram of both shapes you measured, showing all dimensions and your calculated area and perimeter.

QUESTIONS

1. **What were the length, width, area, and perimeter of the rectangular space you measured?**
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2. **How did you find the total area of the L-shaped space?**
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3. **Why does area use square units (like square feet) while perimeter uses regular linear units (like feet)?**
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4. If you wanted to double the area of your rectangular room by only changing the length, what would the new length need to be?
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