

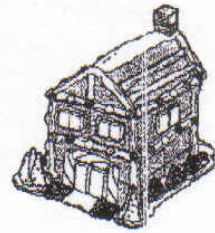
Name \_\_\_\_\_

Project checklist

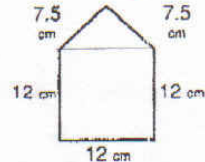


## Designing a "Geobread" House

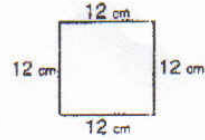
Get set to design a geometric house that would make any gingerbread man proud! For your design to be approved, it must include all of the details below. As you complete each step, check (✓) it off the list.



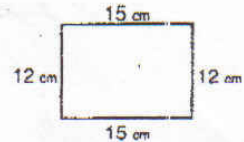
1. **Graph sheet 1:** Use colored pencils to draw two pentagons side by side, each having the dimensions shown. Label one pentagon "Front" and the other "Back." Find the perimeter and the area of each pentagon. Record the measurements on the graph paper. *Hint: To find the area, think of the pentagon as two shapes: a square and a triangle. Then use the formulas  $A = s^2$  and  $A = \frac{1}{2}bh$ .*



2. **Graph sheet 2:** Draw two 12 cm squares side by side. Label one square "Left Side" and the other "Right Side." Find and label the perimeter and area of each square.



3. **Graph sheet 3:** Draw two 12 cm x 15 cm rectangles side by side. Label one "Left Roof" and the other "Right Roof." Find and label the perimeter and area of each rectangle.



4. Classify each item below as a different space figure.

caramel: \_\_\_\_\_ peppermint stick: \_\_\_\_\_  
 Bugles® corn snack: \_\_\_\_\_ gumball: \_\_\_\_\_  
 a piece of Toblerone® chocolate: \_\_\_\_\_ Jolly Rancher®: \_\_\_\_\_

5. Add drawings to your graph-paper designs that show how you'll use the candies and snacks as decorations. Make sure your design has a labeled example of each geometric part listed below.

**Lines and angles:**

- \_\_\_ 2 sets of parallel lines
- \_\_\_ 1 set of perpendicular lines
- \_\_\_ 2 or more sets of intersecting lines
- \_\_\_ 4 right angles
- \_\_\_ 1 obtuse angle
- \_\_\_ 1 acute angle

**Plane figures:**

- \_\_\_ 1 circle
- \_\_\_ 1 rectangle
- \_\_\_ 1 square
- \_\_\_ 1 parallelogram
- \_\_\_ 1 rhombus
- \_\_\_ 1 triangle
- \_\_\_ 1 trapezoid
- \_\_\_ 1 hexagon

**Space figures:**

- \_\_\_ 1 cube
- \_\_\_ 1 cone
- \_\_\_ 1 triangular pyramid
- \_\_\_ 1 sphere
- \_\_\_ 1 rectangular prism

6. Show your design to your teacher for approval. Once it's approved, you're ready to construct your "geobread" house!