

Name _____

Gingerbread House Construction Co.

Mission: You've been hired as the **Lead Architect Elf** at the North Pole's **Gingerbread House Division!** Your job is to **design, calculate, and draw** a gingerbread house that's mathematically delicious and structurally sound.

Part 1: Sweet Geometry - Use the formulas for **area** and **perimeter** to solve these problems before designing your house.

1. The Gingerbread Walls

Each side wall is a **rectangle**: 6 inches tall and 4 inches wide.

Each front and back wall is a **rectangle**: 6 inches tall and 5 inches wide.

- What is the **area** of one side wall?
- What is the **area** of one front/back wall?
- What is the **total surface area** of all four walls (add them together)?



2. The Roof Panels - Each side of the roof is a **rectangle**: 5 inches wide and 7 inches long.

- What is the **area** of one roof panel?
- What is the **combined area** of both roof panels?

3. Cookie Path Perimeter - You're building a cookie path around the base of your house. The footprint of the house is a rectangle measuring 5 inches by 4 inches.

- What is the **perimeter** of the cookie path?

Part 2: Gingerbread House Design Sketch (Draw Your Design)

Using the dimensions above, draw a **front view** and **top-down view** of your gingerbread house.

Include these details in your sketch:

- **Labels** for measurements (height, width, etc.)
- A **door** and at least **one window**
- Optional: Add gumdrop bushes, icing icicles, or candy canes for flair

(Draw in the space below or on a separate sheet.)