

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Per: \_\_\_\_\_

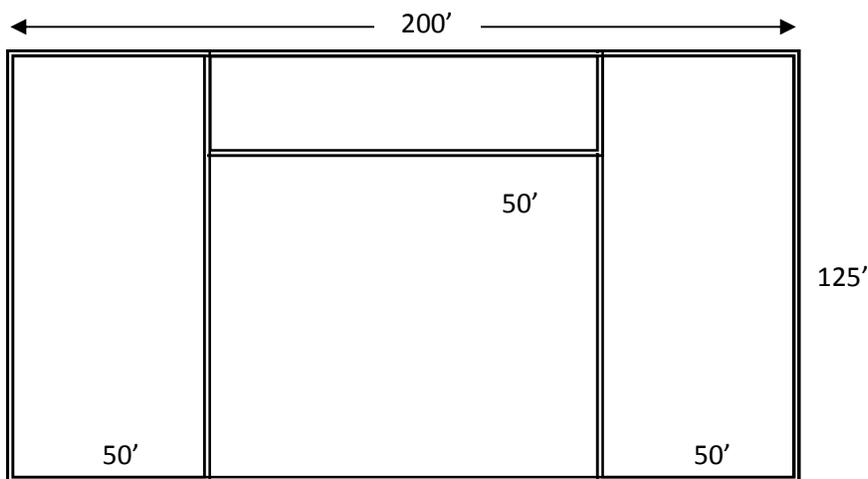
# Team Building

Welcome to *G.P. Tech Incorporated*, a company of carpenters, masons, welders, electricians, and general contractors. Today we are going to make a bid on a job to construct a large warehouse building with cement block exterior walls, metal rafters, and traditional wood/drywall interior walls.

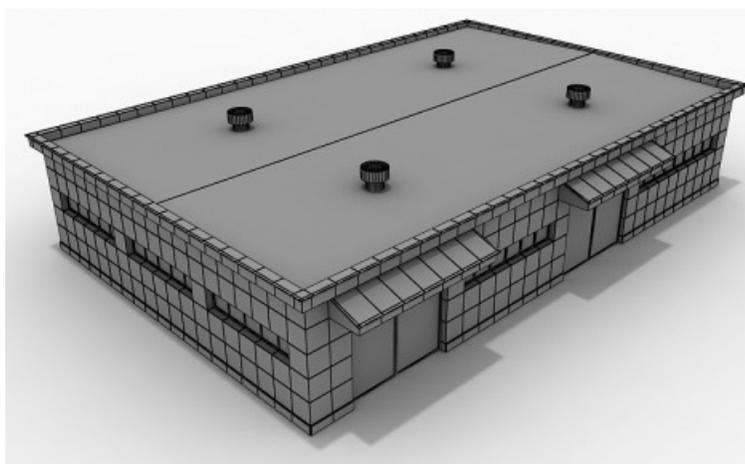
This is a team effort to create an accurate bid (a bid is a price that a contractor gives a customer for a job before they complete the job). If we bid too high, then we will not get the job. If we bid too low, then we may get the job but we will likely lose money on it.

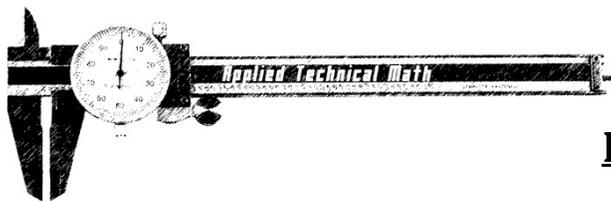
You will be given a trade and a specific task to do. *Note: many of the computations and numbers are simplified and approximated for this activity.* Report the cost for materials and labor to the general contractor upon completing your calculations.

## Basic Floorplan:



Wall height = 12'





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## Electricians:

- Your job is to install the wires, outlets, and circuit breaker panels in the building.
- Each outlet costs \$20 of materials and .5 hours to install.
- We need 2 circuit breaker boxes at \$500 each requiring 8 hours of labor for each installation.
- Wire installation requires .01 hours of labor per foot.
- For each foot of wall, we need 2 feet of wire.
- *Hourly wage: \$25*

### Wiring

1. Find the total length of all the walls: \_\_\_\_\_
2. Find the price of Romex wire from the building supply  
(divide to find the amount per foot) : \_\_\_\_\_ per foot
3. Wire Costs:
  - a. Material costs for all wiring: \_\_\_\_\_
  - b. Labor cost for wiring: \_\_\_\_\_

### Outlets

4. Ask the General Contractor for the outlet requirements.  
\_\_\_\_\_
5. Figure out how many outlets you will need on the whole building? \_\_\_\_\_
6. Outlet Costs:
  - a. Material costs for all outlets: \_\_\_\_\_
  - b. Labor cost for outlets: \_\_\_\_\_



### Circuit Panel

7. Circuit Panel Costs (look above):
  - a. Material costs for panel: \_\_\_\_\_
  - b. Labor cost for panel: \_\_\_\_\_
8. **Total cost of materials (outlets, wires, and panel) = \_\_\_\_\_**
9. Total number of labor hours needed to build and install trusses: \_\_\_\_\_
10. **Total cost for labor: \_\_\_\_\_**