

**BUILDING TRADES
LAYOUT ACTIVITY**

Names: _____

Foreman: _____

Due Date _____

COMPETENCIES :

Industrial Technology Construction (Senate file 449)

- Occupational 1
- Occupational 2
- Occupational 4
- Occupational 6
- Occupational 7
- Occupational 8
- Occupational 12
- Occupational 16
- Occupational 17
- Occupational 21

Scans Foundation Skills

- F3 Arithmetic
- F4 Mathematics
- F5 Listening
- F9 Problem Solving
- F10 Mental Visualization
- F12 Reasoning
- F13 Responsibility
- C1 Manages Time
- C3 Manages Material
- C7 Interprets Information
- C9 Team Member
- C13 Negotiates a Decision
- C19 Applies Technology

ASSIGNMENT LANGUAGE:

- Time limit (2 hours)
- Safe working environment
- Working as a team unit
- Level 1/8" tolerance or within line bubble
- Measurement accuracy 1/16" tolerance
- Diagonals 1/6" tolerance

MATERIALS & EQUIPMENT:

- 3 tape measures
- String Line
- Multiple stakes (1x2's, 1x3's , 1x4's)
- Hammer or screwgun
- Sledge to pound in stakes
- Line level or surveying level & rod
- Duplex nails or screws

SAFETY CONSIDERATIONS:

- Conduct yourself in a safe and appropriate manner.
- Wear appropriate safety attire.
- Follow all safety rules and regulations with tools and equipment.

ACTIVITY: Use an Algebraic formula (Pythagorean Theorem or 3-4-5 method) to layout building lines selected from the blueprint on the next of this page.

PROCEDURE:

1. Select a layout on the back of this page and have your instructor initial it.
2. Ask instructor where benchmark (property corner) is.
3. Obtain materials listed above (bundle of stakes, fasteners, a roll of string line, a hammer and tape per student).
4. Use measurements on blueprint and set batter boards 2 feet back from final corners of your building.
5. Now using the 3-4-5 squaring method and tape measures, layout the string line to the exact dimensions given. Keep the batter boards as level as possible using the transit, carpenters level and/or string level.
6. Adjust string by add/moving nails/screws.
7. Measure diagonals to check for accuracy.

EVALUATION:

SUMMATIVE RUBRIC EVALUATION			
Description	Points Possible	Point Deduction	Points Earned
Distance from benchmark to starting point	10	Minus 2 points for every +- 1/16"	
Building lines level	20	Minus 2 points for every +- 1/8"	
Accuracy of depths	20	Minus 2 points for every +- 1/16"	
Accuracy of lengths	20	Minus 2 points for every +- 1/16"	
Accuracy of diagonals	20	Minus 2 points for every +- 1/16"	
Difficulty factor	0 10 20	Layout A = 0 + 90 Layout B = 10 + 90 Layout C = 20 + 90	
TOTAL	90 – 110		

FORMATIVE RUBRIC EVALUATION		
Description	Points Possible	Point Earned
Leadership of team	+-10	
Teamwork, individual as a part of the team, using strengths to enhance efficiency	25	
Individual stays on task entire lab time	15	
Individual conducts himself/herself in safe manner and has a well being for others	15	
Uses materials and equipment appropriately	15	
Cleans up work area and stores materials and equipment properly	15	
Timeliness: Completes activity on time	15	
TOTAL	100	