

**National FFA
Agricultural Technology and Mechanical Systems
Career Development Event
2016
Team Activity**

Directions for Team Activity

Situation: A school land laboratory needs to construct a feed storage shed for a livestock SAE. Given materials and dimensions, you will construct a roof truss as illustrated in Figure 1. You will calculate the number of trusses and material needed to construct the trusses and roofing components of the building. Finally, you will write a summary report of this project.

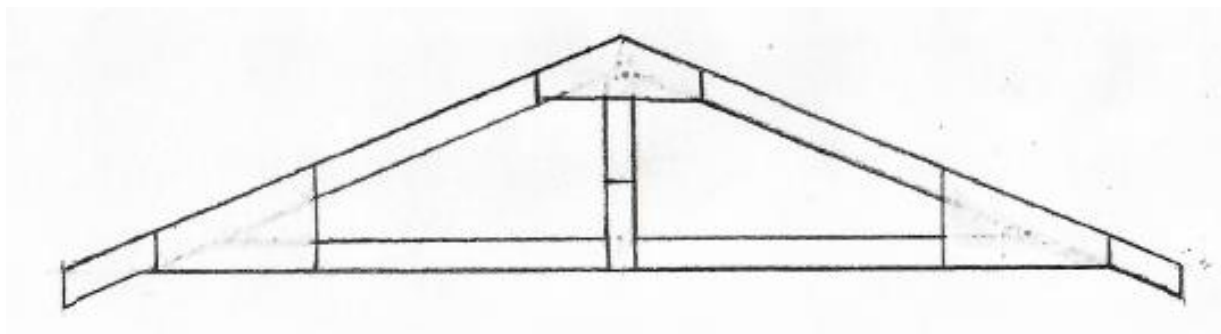


Figure 1. Illustration of completed roof truss with gussets attached on one side

Materials. Each team will be given the following construction materials:

1. Two – 2"x4"x 8' long pieces of framing material.
2. One – 12"x24" piece of OSB to make the four gussets required.
3. 1 ¼" wood screws – attach 8 screws per gusset, evenly spaced (avoid splitting lumber if possible).

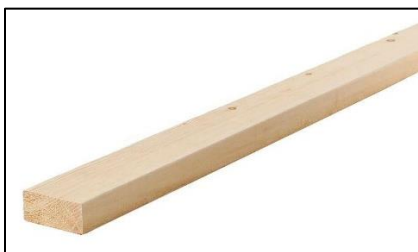


Figure 2. 2 in. x 4 in.
Dimensional lumber



Figure 3. Oriented Strand Board
(OSB) Sheathing



Figure 4. Screws for gussets

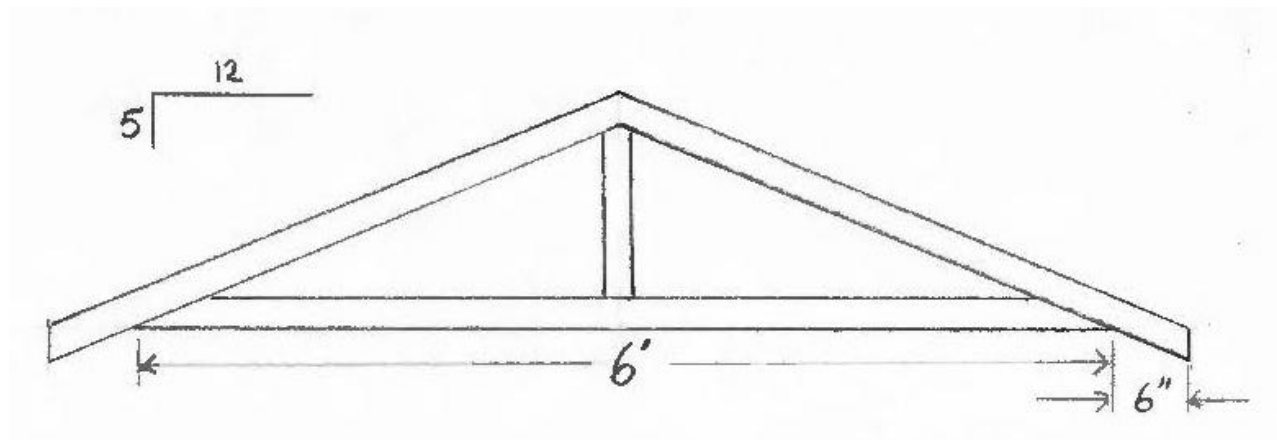
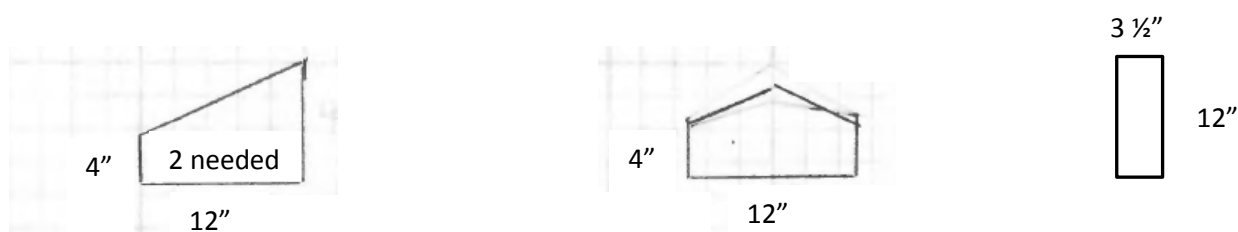


Figure 5. Truss without gussets



Figures 6, 7 & 8 – OSB Gussets. (All gussets dimensions are approximate and should be adjusted for actual trusses)

