

2.2 Truss Calculations

Summary

Students practice simple truss calculations using the method of joints.

Learning Objectives

After this class, students will be able to:

- Draw a free-body diagram, showing forces acting on the body.
- Using force balances at each node of a simple truss, calculate all of the forces within the truss.

Materials

Truss Calculations Worksheet, Pencil, Calculator

Time

80 minutes

Procedure/Pacing

1. As a class work through the first problem on the worksheet.
2. Allow students to work through the remaining problems as small groups.

In-Class Assignment

Assignment 2.2i: Truss Calculations Worksheet

Resources

Method of Joints <http://www.learnengineering.org/2013/08/truss-analysis-method-of-joints.html>

Truss Examples

http://www.ce.siue.edu/examples/Worked_examples_Internet_text-only/Data_files-Worked_Exs-Word_&_pdf/Trusses_Method_of_Joints.pdf

Homework

Assignment 2.3h: Tall Towers

Developed through a partnership between the University of Utah College of Engineering and Granite School District