

Homework #4: Truss Design

Due: Class #13

- 1) For the two trusses shown in Exercise 6.1 on page 143 of the textbook by Zalewski and Allen:
 - a) What are the reactions at each support?
 - b) Draw and label the load line for each truss.
 - c) Construct the force polygon for each truss to determine the internal member forces.
 - d) Label each member force clearly as tension or compression.
 - e) Compare the form of the two trusses. Which truss has higher member forces? Name one advantage and one disadvantage for each truss.

- 2) For the two trusses shown in Exercise 6.1 on page 143 of the textbook by Zalewski and Allen:
 - f) What are the reactions at each support?
 - g) Draw and label the load line for each truss.
 - h) Construct the force polygon for each truss to determine the internal member forces.
 - i) Label each member force clearly as tension or compression.
 - j) Compare the form of the two trusses. Which truss has higher member forces? Name one advantage and one disadvantage for each truss.