VCP - Mechanics
Session 5 Assignment
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Group Project Idea: Statics
Truss Bridge Design
Group Activities/Tasks:

- Understand the basics of truss bridges; use computer applications and simulations to design truss bridges. (http://mathonweb.com/truss.htm)
- Build a truss bridge using available materials in the PASCO Scientific kit (http://www.pasco.com/).
- Calculate the bar forces of truss bridge under static loads.
- Measure the bar forces of truss bridge under static loads.
- Compare calculated and measured bar forces.
- Prepare project report and presentation.

Group Project Idea: Dynamics
Creating Review Manual and Sample Test (e.g., Kinetics of Rigid Bodies)
Group Activities/Tasks:

- Create a list of important topics covered on the test. Rank the topics based on their importance and likelihood that they will be on the test.
- Create a four-page Review Manual (should include important concepts, formulas, and sample problems).
- Create a 50-minute test. Rank the problems based on their difficulty.
- Groups will exchange sample tests. Individual group members will "take" the sample test from the other group. Group members will discuss the test they took, rank the difficulty of the problems, evaluate the quality of each problem, and the overall quality of the test.