

UNIVERSITY OF ILLINOIS AT CHICAGO
Mechanical Engineering

IE 446
Problem Set #11

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Reading: Montgomery, Chapter 11.

1. Montgomery 11-4.
2. Montgomery 11-5.
3. Montgomery 11-6.
4. Montgomery 11-7.
5. Consider the factorial experiment conducted in Montgomery 11-4. Suppose that it was decided that the full factorial experiment would take too much time or money, and the analysts decided to do a fractional factorial (2^{4-1}) experiment instead, with observations (1), *ab*, *bd*, *ad*, *cd*, *ac*, *bc*, and *abcd*. Also suppose that the results of those observations were identical to the results in Montgomery 11-4. Analyze the data using the specified observations only, and comment on any differences between that analysis and the one you conducted for Montgomery 11-4.