

ASEN 5070

Exam No. 3

12/09/08

Open book and notes take home exam.

Please do not give or accept help on this exam.

Due 12/19/08

Work the following problems from chapter 4 of the text:

1. (20%) Problem # 40.
2. (30%) Problem # 42.
3. (25%) Problem # 43 parts a and b.
4. (25%) Answer true or false
 - a. In the general orbit determination problem the estimation error covariance matrix will be a realistic estimate of solution accuracy_____
 - b. The semimajor, semiminor, and intermediate axes of the probability ellipsoid lie along the principal axes _____
 - c. A major advantage of the dynamic model compensation technique is that it provides an estimate of the unmodeled acceleration_____
 - d. A major advantage of solution via orthogonal transformations is that accuracy is enhanced because only the H matrix and not $H^T H$ is operated on_____
 - e. In general, the larger the absolute value of the correlation coefficient between two parameters, the more accurate the solution for the individual parameters_____