Homework Assignment #3
(due: Thursday, September 2, 1 pm)

1. **Rocket**   Taylor problem (3.11)   (5P)

2. **Angular Momentum**   Taylor problem (3.30)   (3P)

3. **Potential**
   3a. Taylor problem (4.16)
   3b. Show that \( \mathbf{F} = -\frac{\partial U}{\partial \mathbf{r}} \hat{\mathbf{r}} \)   (2P)