Math 152, Fall 2007
Professor Hardin
HW #3

From the book: 6.5: 2, 3, 5, 12; 6.6: 6, 7, 9, 13
In addition:

1. Suppose that $Y_1 = 8.3, Y_2 = 4.9, Y_3 = 2.6, Y_4 = 6.5$ is a random sample of size 4 from the 2 parameter uniform pdf:

$$f_Y(y; \theta_1, \theta_2) = \frac{1}{2\theta_2} \qquad \theta_1 - \theta_2 \leq y \leq \theta_1 + \theta_2$$

   Use MOM to calculate $\hat{\theta}_1$ and $\hat{\theta}_2$.

2. Use MOM to find estimators for r and p in the negative binomial pdf:

$$p_X(k; r, p) = \binom{r+k-1}{k} p^r (1-p)^k, \qquad k = 0, 1, \ldots$$