

Due Tuesday, Oct 9

Solve the following problems and staple your solutions to this cover sheet.

1. Exercise 3.24
2. Exercise 3.34
3. Exercise 3.40
4. Exercise 3.48
5. Exercise 3.49
6. Exercise 3.56
7. Exercise 3.60
8. Suppose it is known that 10% of new cars require a visit to the dealer after the purchase to fix one or more faults. If a dealer sells five new cars, what is the probability that at least two of the cars will require a return visit for a fix up?
9. In a binomial distribution, the mean is 4 and the variance is  $\frac{8}{3}$ . Find  $p$ .
10. Apples are packaged automatically in 3-pound bags. Suppose that 4% of the time the bag of apples weigh less than 3 pounds. If you select bags randomly and weigh them in order to find one underweight bag of apples, find the probability that the number of bags that must be selected is exactly 20, at least 20, or at most 20.