Quiz Ch6 #2 “AP Stats” NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Free Response**

*DIRECTIONS: You must show all work and indicate the methods you use. You will be graded on the correctness of your methods and on the accuracy of your final answers.*

The probability that Mike Trout gets a hit on any given at-bat is .306, and we will assume that each at-bat is independent.

a) What is the probability that his next hit will be on his 7th at-bat?

b) What is the probability he has exactly 1 hit in six at-bats?

c) What is the expected number of hits in 23 at-bats?

d) What is the expected number of at-bats until the next hit?

e) What is the probability he gets at least 5 hits in 25 at-bats?

f) What is the probability that his first hit comes after his 13th at-bat?