Math 313-01, Homework for Quiz # 4

Story Proofs:

15, 16 from the Exercises in Section 1.9 on page 34 of the text

Conditional Probability:

1. Find the probability to draw an ace if you already drew (without replacement) an ace and a king from a well-shuffled deck of 52 cards

2. Mr. Jones has 3 children. The older child is a girl. What is the probability that all 3 children are girls?

3. Mr. Smith has 3 children. At least one of them is a boy. What is the probability that all 3 children are boys?

4. In a box of 30 size AA batteries, 18 are brand X and 12 are brand Y. You also know that 5 of the brand X batteries are dead, while 3 of the brand Y are dead. Find the probability that in a (random) draw you get (i) a dead battery (ii) a dead brand Y battery (iii) brand X given that you drew a dead battery