MAT 114 Name: _____

Practice Quiz – Probability Applications of Counting Principles

1. In a container I have 2 purple balls, 5 red balls, and 3 yellow balls. If I pick two balls without replacement what is the probability that
    a. I pick a red ball first and then a purple ball

    b. I pick a purple and a red ball

2. A box contains 12 batteries, of which 4 are defective. Three (3) batteries are chosen at random, what is the probability that:

    a. Exactly two batteries are defective.

    b. All three batteries are good.

    c. At least two batteries are good.

3. Six cards are drawn from a deck of cards. What is the probability that:

    a. What is the probability that you draw 1 king, 2 fives and 3 tens?

    b. What is the probability that you draw at least 1 king?