1. Problem of the Points – Blaise lacks 3, Pierre lacks 1, Christian lacks 2, when
the game ends prematurely. How are they to split the pot? Show your work.
6/81, 57/81, & 18/81, respectively.

2. Draw the probability tree for the following game: A six-sided die is tossed. If it
comes up 1, 2, or 3, Sue wins. If it comes up 4 or 5, Kay wins, and if it comes up
6, Linda wins. The die is tossed until someone wins 2 times. Use your tree to
determine the probability that Kay wins the game.
17/54

3. The chance that the Yankees win any given baseball game they play is 0.6.
Suppose the Yankees play the Phillies 4 times. What is the probability that the
Yankees win a) all four games, b) 3 out of the 4, c) 2 out of 4, d) 1 out of 4, e) none of the games.
   a) .6^4
   b) 4x.6^3x.4
   c) 6x.6^2x.4^2
   d) 4x.6x.4^3
   e) .4^4

4. Sum the following series: 5 -10/3 + 20/9 – 40/27 + ... = 3

5. Find average and instantaneous velocities on a graph – or sketch a graph that
has specified average and instantaneous velocity behavior.

6. Find the equation of the tangent line to y = 5x^3 – 12x^2+ 10x - \sqrt{x} – 8 at x=1.
   
y = x/2-13/2