

Math 240, Quiz 8

Name:

Circle One: T 12:05 T 2:25 R 12:05 R 2:25

Instructions: Answer all questions fully, showing work where necessary.

1) What is the coefficient of x^8y^9 in the expansion of $(3x + 2y)^{17}$?

2) How many solutions are there to the equation $x_1 + x_2 + x_3 + x_4 + x_5 + x_6 = 29$ where $x_i, i = 1, 2, 3, 4, 5, 6$, is a nonnegative integer such that $x_i > 1$ for $i = 1, 2, 3, 4, 5, 6$?

3) What is the probability that a five-card poker hand contains cards of five different kinds (that is, there are no pairs among the five cards)?

Bonus (1 pt): Who was the leading scorer for the Wisconsin men's basketball team during the NCAA tournament?