

MATH. 125, QUIZ 15 - Section 10.5

You may not use a calculator. Show each step of your solution, you do not get credit for just writing the final answer. Simplify all answers as much as possible. You may get extra/bonus credit for presenting and explaining your solutions in a professional way (like in the textbook).

1. (4 points) Evaluate

$$\binom{10}{3} =$$

2. (5 points) Using the Binomial Formula expand and simplify $(2x - \frac{1}{2})^5$

continue on *the next page*

3. (6 points) Using the Binomial Formula expand and simplify $(2x - 5)^4$

4. (6 points) Using the Binomial Formula expand and simplify $\left(x - \frac{3}{\sqrt{x}}\right)^3$

5. (6 points) Use the Binomial Formula to find the coefficient of x^3 in the expression $\left(\frac{x}{2} - 1\right)^{10}$; simplify your answer.