## Binomial Theorem Homework

Use the Binomial Theorem to expand and simplify the expression. Complete these in your notebooks.

As you complete each expansion, check your answer using a binomial theorem online calculator. Just google "binomial theorem online calculator".

Keep in mind that you will not have this luxury on the quiz.

1. $(x+3)^{5}$
2. $(2 x+5)^{4}$
3. $(3 x-1)^{6}$
4. $(5 x-2 y)^{3}$
5. Find the $4^{\text {th }}$ term in the expansion of $(4 x+5)^{9}$
6. Find the coefficient of $x^{7}$ in the expansion of $(x-2)^{10}$

You will have a quiz on the Binomial Theorem next class. I will ask you to expand binomials just as you did above, however (as mentioned) you will not be able to check your answers using the online calculator. ©

