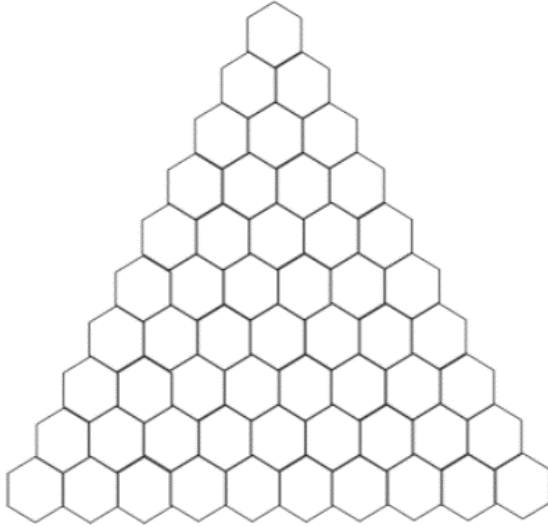


## Math 3 Honors Unit 3 Day 9 - Pascal's Triangle

A shortcut you can use when given multiple roots is \_\_\_\_\_.

Fill in Pascal's Triangle.



- The rows in Pascal's triangle represent the \_\_\_\_\_ of each term.
- You will \_\_\_\_\_ the power of the first term in the binomial and \_\_\_\_\_ the power of the second term.

Example:  $(x+y)^3$  Hint: since our exponent is 3, we will use the row with the 3 in it!!

Expand and write in standard form.

1.  $(x - y)^5$

2.  $(2x + 3y)^4$

Write the polynomial in standard form with the following zeros.

3. -4 with a multiplicity of 6

4.  $\frac{1}{2}$  with a multiplicity of 3

Now You Try:

5) Find the 4<sup>th</sup> term of  $(x + y)^7$

6) Find the 6<sup>th</sup> term of  $(2x + 3y)^9$