## C12 - 11.11 - Binomial Expansion HW

Expand using FOIL.

$$(x + 1)^2$$

$$(x + 1)^3$$

$$(x-3)^2$$

$$(x-3)^3$$

$$(a+b)^2$$

$$(a+b)^3$$

What do you notice about the coefficients of the last two examples and Pascal's triangle?

Expand using Pascal's Triangle

$$(x + y)^2$$

$$(x + y)^3$$

$$(x+y)^4$$

$$(x + y)^5$$

## C12 - 11.11 - Binomial Theorem WS

How many terms are in the expansion:

 $(x + y)^2$ 

 $(x + y)^4$ 

 $(x+y)^{99}$ 

What is the third term in the expansion of:

 $(x + y)^5$ 

 $(x + 2)^5$ 

What is the fifth term in the expansion of:

 $(x-3)^7$ 

 $(x - 2y)^8$ 

What is the 2nd term in the expansion of:

 $(x^2 + 2)^5$ 

What is the term with  $x^2$  in the expansion of:

 $(x-3)^7$ 

What is the constant term in the expansion of:

 $(x + 2)^3$