## Algebra 2

## 8-06B the Binomial Theorem

## Binomial Theorem

$$
\begin{gathered}
(a+b)^{n}={ }_{n} C_{0} a^{n-0} b^{0}+{ }_{n} C_{1} a^{n-1} b^{1}+\cdots+{ }_{n} C_{r} a^{n-r} b^{r} \\
=\sum_{r=0}^{n}{ }_{n} C_{r} a^{n-r} b^{r}
\end{gathered}
$$

Expand $(c-4)^{5}$

Expand $\left(w^{3}-3\right)^{4}$

Expand $(x+2)^{3}$
$\qquad$

Find the coefficient of the $x^{4}$ term in $(x-3)^{7}$.

Find the coefficient of the $x^{5}$ term in $(x-2)^{10}$.

445 \# $47,48,49,51,53,55,56,57,58,59,67,71,83,85,87=15$

