



Binomial Theorem - Polynomial with Integer, Theorem and Power to Binomial

Notation and Power

1 Find the term containing x^1 in the expansion of this expression.

$$(x + 2)^4$$

$$(x + 2)^4 = \sum_{k=0}^4 \binom{4}{k} x^{4-k} 2^k$$

- A $\binom{4}{3} x^1 (2)^3$ B $\binom{4}{3} x^1 (2)^1$ C $\binom{4}{3} x^3 (2)^1$ D $\binom{3}{4} x^1 (2)^3$

2 Find the term containing n^2 in the expansion of this expression.

$$(n - 3)^3$$

$$(n - 3)^3 = \sum_{k=0}^3 \binom{3}{k} n^{3-k} (-3)^k$$

- A $\binom{3}{1} n^2 (-3)^2$ B $\binom{1}{3} n^2 (-3)^1$ C $\binom{3}{1} n^2 (-3)^1$ D $\binom{3}{1} n^1 (-3)^2$

3 Find the term containing z^1 in the expansion of this expression.

$$(z + 2)^5$$

$$(z + 2)^5 = \sum_{k=0}^5 \binom{5}{k} z^{5-k} 2^k$$

- A $\binom{5}{4} z^1 (2)^1$ B $\binom{5}{4} z^1 (2)^4$ C $\binom{5}{4} z^4 (2)^1$ D $\binom{4}{5} z^1 (2)^4$

4 Find the term containing t^3 in the expansion of this expression.

$$(t - 3)^5$$

$$(t - 3)^5 = \sum_{k=0}^5 \binom{5}{k} t^{5-k} (-3)^k$$

- A $\binom{5}{2} t^2 (-3)^3$ B $\binom{5}{2} t^3 (-3)^2$ C $\binom{2}{5} t^3 (-3)^2$ D $\binom{5}{2} t^3 (-3)^3$

5 Find the term containing m^1 in the expansion of this expression.

$$(m - 3)^5$$

$$(m - 3)^5 = \sum_{k=0}^5 \binom{5}{k} m^{5-k} (-3)^k$$

- A $\binom{5}{4} m^1 (-3)^1$ B $\binom{5}{4} m^1 (-3)^4$ C $\binom{4}{5} m^1 (-3)^4$ D $\binom{5}{4} m^4 (-3)^1$

6 Find the term containing t^3 in the expansion of this expression.

$$(t - 3)^4$$

$$(t - 3)^4 = \sum_{k=0}^4 \binom{4}{k} t^{4-k} (-3)^k$$

- A $\binom{4}{1} t^3 (-3)^1$ B $\binom{4}{1} t^3 (-3)^3$ C $\binom{4}{1} t^1 (-3)^3$ D $\binom{1}{4} t^3 (-3)^1$

7 Find the term containing y^4 in the expansion of this expression.

$$(y + 2)^5$$

$$(y + 2)^5 = \sum_{k=0}^5 \binom{5}{k} y^{5-k} 2^k$$

- A $\binom{5}{1} y^4 (2)^1$ B $\binom{5}{1} y^1 (2)^4$ C $\binom{1}{5} y^4 (2)^1$ D $\binom{5}{1} y^4 (2)^4$

8 Find the term containing t^1 in the expansion of this expression.

$$(t - 2)^3$$

$$(t - 2)^3 = \sum_{k=0}^3 \binom{3}{k} t^{3-k} (-2)^k$$

- A $\binom{3}{2} t^2 (-2)^1$ B $\binom{3}{2} t^1 (-2)^1$ C $\binom{3}{2} t^1 (-2)^2$ D $\binom{2}{3} t^1 (-2)^2$