



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

1 Find the term containing  $x^2$  in the expansion of this expression.

$$(x + 2)^3$$

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

A

12

B

-6

C

6

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

$$(t + 2)^5$$

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

A

-80

B

60

C

80

3 Find the term containing  $t^4$  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

90

B

-15

C

15

4 Find the term containing  $m^2$  in the expansion of this expression.

$$(m - 2)^5$$

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

A

80

B

-60

C

-80

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

$$(m + 3)^4$$

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

A

-108

B

108

C

36

D

81

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

$$(t + 2)^4$$

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

A

24

B

-8

C

8

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

$$(x - 3)^5$$

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

A

90

B

15

C

-15

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

$$(n - 2)^4$$

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

A

16

B

32

C

-32

D

-24