

1.4 Binomial Theorem

Period _____

Expand completely.

1) $(b + 2)^4$

2) $(x^4 + y)^5$

3) $(m - 5n)^3$

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

5) $(2n^4 - 1)^5$

6) $(5x + 1)^2$

Expand each binomial completely and find each coefficient described.

7) Coefficient of y in expansion of $(y - 2)^3$

8) Coefficient of mn in expansion of $(9m + 3n)^2$

9) Coefficient of u^2v^2 in expansion of $(u - v)^4$

10) Coefficient of x^3 in expansion of $(2x - 1)^5$

Expand each binomial completely and find each term described.

11) 5th term in expansion of $(2m + 1)^5$

12) 3rd term in expansion of $(2u - 1)^4$

13) 4th term in expansion of $(u - v)^3$

14) 2nd term in expansion of $(3m - 1)^2$

Simplify each expression.

15) $(4m + 3m^2 + 6m^3) - (?) = 3m^3 - 3m^2 - 3m$

16) $(7x^4 + 4x^3 - 8x^2) + (5x^4 + 5x^3) - (2x^3 - 3x^4)$

17) $(8n^3 - 4n + 7 - 2n^4) - (6n^3 + 7n - 5)$

18) $(5v^2 - 5v^4) + (8v^4 + 8v^2)$