

Binomial Expansion – Using Pascal’s Triangle WS

Use Pascal’s Triangle to expand each binomial.

1. $(x + y)^3$

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

3. $(m + 3n)^3$

4. $(p + q)^5$

5. $(x + y)^5$

6. $(4x + y)^4$

7. $(2x + y)^5$

8. $(n + 2m)^4$

9. $(3x + 2y)^4$

10. $(4 - 3x)^6$

BINOMIAL EXPANSION – USING PASCAL’S TRIANGLE WS

ANSWERS

1. $x^3 + 3x^2y + 3xy^2 + y^3$
2. $16x^4 + 32x^3y + 24x^2y^2 + 8xy^3 + y^4$
3. $m^3 + 9m^2n + 27mn^2 + 27n^3$
4. $p^5 + 5p^4q + 10p^3q^2 + 10p^2q^3 + 5pq^4 + q^5$
5. $x^5 + 5x^4y + 10x^3y^2 + 10x^2y^3 + 5xy^4 + y^5$
6. $256x^4 + 256x^3y + 96x^2y^2 + 16xy^3 + y^4$
7. $32x^5 + 80x^4y + 80x^3y^2 + 40x^2y^3 + 10xy^4 + y^5$
8. $16m^4 + 32m^3n + 24m^2n^2 + 8mn^3 + n^4$
9. $81x^4 + 216x^3y + 216x^2y^2 + 96xy^3 + 16y^4$
10. $4096 - 18432x + 34560x^2 - 34560x^3 + 19440x^4 - 5832x^5 + 729x^6$