

2.5 The Binomial Theorem

Evaluate.

1. $\binom{5}{2}$

2. $\binom{7}{5}$

3. $\binom{8}{2}$

4. $\binom{100}{2}$

Expand the binomial.

5. $(x + 2)^4$

6. $(a - 2)^5$

Write the first three terms of the binomial expansion.

7. $(x - 2y)^7$

8. $(2x + 3)^9$

9. Find the coefficient of x^3y^4 in the expansion of $(x - 2y)^7$.

10. Find the coefficient of x^6 in the expansion of $(x - 2)^9$.