

5) Find the term containing x^3 in the expansion of $(7x+3)^9$ using Pascal's Triangle and/or the Binomial Theorem.

6) Find the coefficient a of the term ax^2y^8 in the expansion of $(4x-y)^{10}$.

7) Find the **coefficient** of the fifth term in the expansion of $(-3x+y)^{14}$ using Pascal's Triangle and/or the Binomial Theorem.

8) Express $1296x^{12} - 4320x^9y^2 + 5400x^6y^4 - 3000x^3y^6 + 625y^8$ in the form $(a+b)^n$.

9) Express

$$117,649x^{18} + 1,008,420x^{15}y^4 + 3,601,500x^{12}y^8 + 6,860,000x^9y^{12} + 7,350,000x^6y^{16} \\ + 4,200,000x^3y^{20} + 1,000,000y^{24}$$

in the form $(a+b)^n$.