

Legendre Polynomial Roots and Coefficients:

The following table gives the roots and coefficients for Legendre Polynomials of degree 2, 3, 4, and 5. More complete tables can be found in various references.

n	i	Roots $r_{n,i}$	Coefficients $c_{n,i}$
2	1	0.5773502692	1.0000000000
	2	-0.5773502692	1.0000000000
3	1	0.7745966692	0.5555555556
	2	0.0000000000	0.8888888889
	3	-0.7745966692	0.5555555556
4	1	0.8611363116	0.3478548451
	2	0.3399810436	0.6521451549
	3	-0.3399810436	0.6521451549
	4	-0.8611363116	0.3478548451
5	1	0.9061798459	0.2369268850
	2	0.5384693101	0.4786286705
	3	0.0000000000	0.5688888889
	4	-0.5384693101	0.4786286705
	5	-0.9061798459	0.2369268850