

## Transitive Groups of Degree 4

| No | Group        | Order | 2-Index                    | Molien Series  |
|----|--------------|-------|----------------------------|--|
| 1  | "C4 = 4"     | 4     | $1 + t + 2t^2 + t^3 + t^4$ | $1 + t + 3t^2 + 5t^3 + 10t^4 + 14t^5 + 22t^6 + 30t^7 + 43t^8 + 55t^9 + 73t^{10}$ |
| 2  | "E4 = 2[x]2" | 4     | $1 + t + 3t^2 + t^3 + t^4$ | $1 + t + 4t^2 + 5t^3 + 11t^4 + 14t^5 + 24t^6 + 30t^7 + 45t^8 + 55t^9 + 76t^{10}$ |
| 3  | "D4"         | 8     | $1 + t + 2t^2 + t^3 + t^4$ | $1 + t + 3t^2 + 4t^3 + 8t^4 + 10t^5 + 16t^6 + 20t^7 + 29t^8 + 35t^9 + 47t^{10}$  |
| 4  | "A4"         | 12    | $1 + t + t^2 + t^3 + t^4$  | $1 + t + 2t^2 + 3t^3 + 5t^4 + 6t^5 + 10t^6 + 12t^7 + 17t^8 + 21t^9 + 28t^{10}$   |
| 5  | "S4"         | 24    | $1 + t + t^2 + t^3 + t^4$  | $1 + t + 2t^2 + 3t^3 + 5t^4 + 6t^5 + 9t^6 + 11t^7 + 15t^8 + 18t^9 + 23t^{10}$    |