

Transitive Groups of Degree 7

| No | Group | Order | DimCA | CAZ | DimGA | GrAZ | Cycle_Index |
|----|-------------|-------|-------|-----|-------|------|--|
| 1 | C7 = 7 | 7 | 7 | T | 7 | T | $\frac{1}{7}x_1^7 + \frac{6}{7}x_7$ |
| 2 | D7 = 7:2 | 14 | 4 | T | 13 | F | $\frac{1}{14}x_1^7 + \frac{1}{2}x_1x_2^3 + \frac{3}{7}x_7$ |
| 3 | F_217 = 7:3 | 21 | 3 | T | 19 | F | $\frac{1}{21}x_1^7 + \frac{2}{3}x_1x_3^2 + \frac{2}{7}x_7$ |
| 4 | F_427 = 7:6 | 42 | 2 | T | 37 | F | $\frac{1}{42}x_1^7 + \frac{1}{6}x_1x_2^3 + \frac{1}{3}x_1x_3^2 + \frac{1}{3}x_1x_6 + \frac{1}{7}x_7$ |
| 5 | L7 = L3,2 | 168 | 2 | T | 37 | F | $\frac{1}{168}x_1^7 + \frac{1}{8}x_1^3x_2^2 + \frac{1}{4}x_1x_2x_4 + \frac{1}{3}x_1x_3^2 + \frac{2}{7}x_7$ |
| 6 | A7 | 2520 | 2 | T | 37 | F | $\frac{1}{2520}x_1^7 + \frac{1}{36}x_1^4x_3 + \frac{1}{24}x_1^3x_2^2 + \frac{1}{5}x_1^2x_5 + \frac{1}{4}x_1x_2x_4 + \frac{1}{9}x_1x_3^2 + \frac{1}{12}x_2^2x_3 + \frac{2}{7}x_7$ |
| 7 | S7 | 5040 | 2 | T | 37 | F | $\frac{1}{5040}x_1^7 + \frac{1}{240}x_1^5x_2 + \frac{1}{72}x_1^4x_3 + \frac{1}{48}x_1^3x_2^2 + \frac{1}{24}x_1^3x_4 + \frac{1}{12}x_1^2x_2x_3 + \frac{1}{48}x_1x_2^3 + \frac{1}{10}x_1^2x_5 + \frac{1}{8}x_1x_2x_4 + \frac{1}{18}x_1x_3^2 + \frac{1}{24}x_2^2x_3 + \frac{1}{6}x_1x_6 + \frac{1}{10}x_2x_5 + \frac{1}{12}x_3x_4 + \frac{1}{7}x_7$ |