

# Anharmonic Group Elements as Generated by Machine

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| Typed in by hand                   | Computed by machine   |
|------------------------------------|---|
| $[(B^4 - A^4), (B^3 A - BA^3)]$    | $= (-4) \cdot (B^6 - A^6) + (12) \cdot (B^4 A^2 - B^2 A^4) + (36) \cdot (B^3 A - BA^3) + (24) \cdot (B^2 - A^2)$    |
| $[(B^4 - A^4), (B^2 - A^2)]$       | $= (8) \cdot (B^3 A - BA^3) + (12) \cdot (B^2 - A^2)$   |
| $[(B^4 - A^4), (B^4 + A^4)]$       | $= (-32) \cdot B^3 A^3 + (-144) \cdot B^2 A^2 + (-192) \cdot BA + (-48)$  |
| $[(B^4 - A^4), (B^3 A + BA^3)]$    | $= (-4) \cdot (B^6 + A^6) + (-12) \cdot (B^4 A^2 + B^2 A^4) + (-36) \cdot (B^3 A + BA^3) + (-24) \cdot (B^2 + A^2)$ |
| $[(B^4 - A^4), (B^2 + A^2)]$       | $= (-8) \cdot (B^3 A + BA^3) + (-12) \cdot (B^2 + A^2)$   |
| $[(B^3 A - BA^3), (B^2 - A^2)]$    | $= (2) \cdot (B^4 - A^4)$   |
| $[(B^3 A - BA^3), (B^4 + A^4)]$    | $= (4) \cdot (B^6 + A^6) + (-12) \cdot (B^4 A^2 + B^2 A^4) + (-36) \cdot (B^3 A + BA^3) + (-24) \cdot (B^2 + A^2)$  |
| $[(B^3 A - BA^3), (B^3 A + BA^3)]$ | $= (-16) \cdot B^3 A^3 + (-36) \cdot B^2 A^2 + (-12) \cdot BA$  |
| $[(B^3 A - BA^3), (B^2 + A^2)]$    | $= (2) \cdot (B^4 + A^4) + (-12) \cdot B^2 A^2 + (-12) \cdot BA$  |
| $[(B^2 - A^2), (B^4 + A^4)]$       | $= (-8) \cdot (B^3 A + BA^3) + (-12) \cdot (B^2 + A^2)$   |
| $[(B^2 - A^2), (B^3 A + BA^3)]$    | $= (-2) \cdot (B^4 + A^4) + (-12) \cdot B^2 A^2 + (-12) \cdot BA$   |
| $[(B^2 - A^2), (B^2 + A^2)]$       | $= (-8) \cdot BA + (-4)$  |
| $[(B^4 + A^4), (B^3 A + BA^3)]$    | $= (-4) \cdot (B^6 - A^6) + (-12) \cdot (B^4 A^2 - B^2 A^4) + (-36) \cdot (B^3 A - BA^3) + (-24) \cdot (B^2 - A^2)$ |
| $[(B^4 + A^4), (B^2 + A^2)]$       | $= (-8) \cdot (B^3 A - BA^3) + (-12) \cdot (B^2 - A^2)$   |
| $[(B^3 A + BA^3), (B^2 + A^2)]$    | $= (2) \cdot (B^4 - A^4)$   |