

- (1) Isomorphism from G to $Sz(q)$.
- (2) Isomorphism from $Sz(q)$ to G .

Suzuki Sylow(G, p) : GrpMat, RngIntElt \rightarrow GrpMat, SeqEnum
If G

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> ww := Function(g2slp)(G.1);
> print w eq ww;
false
> // the resulting SLPs are from another word group
> W := WordGroup(G);
> print NumberOfGenerators(Parent(w)), NumberOfGenerators(W);
7 3
> // but can be coerced into W
> flag, ww := IsCoercible(W, w);
> print flag;
true
> // so there are two ways to get the element back
> print slp2g(w) eq Evaluate(ww, UserGenerators(G));
true
> // an alternative is this intrinsic, which is better if the elements are not
> // known to lie in the group
> flag, ww := SzElementToWord(G, G.1);
> print flag, slp2g(w) eq slp2g(ww);
true true
> // let's try something just our98077(r)-4077(g)-4.97954(,)-5102we the group
> H := Sp(4, 32);
> flag, ww := SzElementToWord(G, H.1);
> print flag;
false
> // in this case we will not get an SLP
> ww := Function(g2slp)(H.1);
> print ww;
false
> // we do indeed have a Suzuki group
> print SatisfiesSzPresentation(G);
true

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Time: 0.100
> // try creating some Sylow subgroups
> p := Random([x[1] : x in Factorization(q - 1)]);
> print p;
73
> time R := SuzukiSylow(G, p);
Time: 0.020
> time S := SuzukiSylow(G, p);
Time: 0.000

> pr2n7954(i)-4.9p077(t)5(2n79542o)-4.97954(n)5(2n7954(l))-4.97954(4.15(2n7954(i))-4.9p077(t)
> pr> a> oer
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> // try finding the maximal subgroups
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