

```
A<T>:=PolynomialRing(RationalField());
E8:=GroupOfLieType("E8",RationalField());
gen:=AlgebraicGenerators(E8);
rho:=AdjointRepresentation(E8);
g:=Identity(E8); for i in gen do g:=g*i ; end for;
m:=rho(g);
pol:=CharacteristicPolynomial(m) div (T-1)^8;
```