```
N = 158 = 2*79

By the Ibukiyama-Kitayama dimension formula,
 dim(S_4(K(158))) = 64

By the Skoruppa-Zagier dimension formula and Jacobi restriction,
 the lift dimension of S_4(K(158))^+ is 28
 the nonlift dimension of S_4(K(158))^+ is heuristically 26
 dim(S_4(K(158))^+) thus is heuristically 54
 dim(S_4(K(158))^-) is heuristically 10

The heuristic dimensions are correct by the spanning results to follow

dim(J_{2,158}^{cusp}) = 3 (Skoruppa-Zagier), so need to span to within 2 dimensions

q = 5 for TraceDown
After TD(Grit(J_{4,790}^{cusp})) and (Grit(J_{2,158}^{cusp}))^2,
 spanned rank in S_4(K(158))^+ is 54
 spanned rank in S_4(K(158))^- is 0

Hecke operators applied: {{{2, 2}}, {{2, 2}, {2, 1}}}
After Hecke spreading,
 spanned rank in S_4(K(158))^- is 8

After Borcherds products,
 spanned rank in S_4(K(158))^- is 10

Final spanned rank in S_4(K(158))^+ is 54
Final spanned rank in S_4(K(158))^- is 10

--------------------------------------------------------------------------------

S_2(K(158)) is determined by Jacobi restriction and the H4Ndd(2,+) test
 (H_4(158,2,2)^+ = 0)

So S_2(K(158)) = Grit(J_{2,158}^{cusp}) (dimension 3)
```