```
N = 138 = 2*3*23

By the Ibukiyama-Kitayama dimension formula,
 dim(S_4(K(138))) = 48

By the Skoruppa-Zagier dimension formula and Jacobi restriction,
 the lift dimension of S_4(K(138))^+ is 21
 the nonlift dimension of S_4(K(138))^+ is heuristically 20
 dim(S_4(K(138))^+) thus is heuristically 41
 dim(S_4(K(138))^-) is heuristically 7

The heuristic dimensions are correct by the spanning results to follow

dim(J_{2,138}^{cusp}) = 1 (Skoruppa-Zagier), so need to span completely

q = 7 for TraceDown
After TD(Grit(J_{4,966}^{cusp})) and (Grit(J_{2,138}^{cusp}))^2,
 spanned rank in S_4(K(138))^+ is 41
 spanned rank in S_4(K(138))^- is 0

Hecke operators applied: {{{3, 2}}}
After Hecke spreading,
 spanned rank in S_4(K(138))^- is 1

After Borcherds products,
 spanned rank in S_4(K(138))^- is 7

Final spanned rank in S_4(K(138))^+ is 41
Final spanned rank in S_4(K(138))^- is 7

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

S_2(K(138))^+ is determined by Jacobi restriction and the H4Nd1(1,+) test
 (dim(H_4(138,1,1)^+) <= 1 and this is less than dim(J_{2,138}^{cusp})+1 = 2)
S_2(K(138))^- = 0 by Jacobi restriction and the H4Nd1(1,-) test
 (dim(H_4(138,1,1)^-) <= 0 and this is less than dim(J_{2,138}^{cusp}) = 1)

So S_2(K(138)) = Grit(J_{2,138}^{cusp}) (dimension 1)
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