```
N = 161 = 7*23

By the Ibukiyama-Kitayama dimension formula,
 dim(S_4(K(161))) = 57

By the Skoruppa-Zagier dimension formula and Jacobi restriction,
 the lift dimension of S_4(K(161))^+ is 27
 the nonlift dimension of S_4(K(161))^+ is heuristically 28
 dim(S_4(K(161))^+) thus is heuristically 55
 dim(S_4(K(161))^-) is heuristically 2

The heuristic dimensions are correct by the spanning results to follow

dim(J_{2,161}^{cusp}) = 2 (Skoruppa-Zagier), so need to span to within 1 dimension

q = 5 for TraceDown
After TD(Grit(J_{4,805}^{cusp})) and (Grit(J_{2,161}^{cusp}))^2,
 spanned rank in S_4(K(161))^+ is 55
 spanned rank in S_4(K(161))^- is 0

After Borcherds products,
 spanned rank in S_4(K(161))^- is 2

Final spanned rank in S_4(K(161))^+ is 55
Final spanned rank in S_4(K(161))^- is 2

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

S_2(K(161)) is determined by Jacobi restriction and the H4Ndd(2,+) test
 (H_4(161,2,2)^+ = 0)

So S_2(K(161)) = Grit(J_{2,161}^{cusp}) (dimension 2)
```