

Final Review Comments

Date: May 25, 2015

Referring to the highlighted text (see the attached manuscript), make correction according to the following explanations.

- In line 2 of page 2, replace “an eta quotients” by “eta quotients”.
- In line 4 of page 2, replace “develop” by “develops”.
- In the end of the second paragraph of page 2, replace “give the expansion” by “gives the expansion”.
- In formula (12) of page 4, delete the factor k^{12} and erase the parentheses “(” and “)” on the right hand side of the equation.
- In equation following (14) (this equation has no equation number) on page 5, use the fractions $\frac{2a_4}{3}$ and $\frac{2a_{12}}{3}$ instead of $2\frac{a_4}{3}$ and $2\frac{a_{12}}{3}$ (to not confused with the mixed fractions).
- In the third line after “Now” on page 6, use the fractions $\frac{2a_4}{3}$ and $\frac{2a_{12}}{3}$ instead of $2\frac{a_4}{3}$ and $2\frac{a_{12}}{3}$.
- Clarify the last equality on page 8 by adding “if $r_{11} = r_{12} = \dots = r_{19} = 0$ ” at the end of the equation, i.e. replace the end of the page by
“ $= c_1\sigma_{11}(2n)+c_2\sigma_{11}(n)+c_4\sigma_{11}\left(\frac{n}{2}\right)+(2049c_3+c_6)\sigma_{11}\left(\frac{n}{3}\right)+(c_{12}-2048c_3)\sigma_{11}\left(\frac{n}{6}\right),$
if $r_{11} = r_{12} = \dots = r_{19} = 0.$ ”
- Attach “,” at the end of line 2 of of page 9, and delete “and,” in the beginning of line 3. Note that it would probably look better by typing “for $n = 1, 2, \dots,$ ” instead of “for $n=1,2,\dots,$ ”.
- For your Remark 2 to be true, the reviewer thinks that it is important to mention that for the 198 eta quotients, one has $r_{11} = r_{12} = \dots = r_{19} = 0$, and for the 334 eta quotients, one has $r_1 = r_2 = \dots = r_{10} = 0$.

- In line 2 from the bottom of page 9, shouldn't the modular form be of weight 12? Namely, $S_6(\Gamma_0(3))$ should be replaced by $S_{12}(\Gamma_0(3))$.
- In the second equality for f_2 on page 31, the factors p^{16} and p^{12} should stick together with their coefficients.
- In the second equality for f_{18} on page 35, the left parenthesis "(" is missing.
- Many formulas have the equation numbers but no references to them are mentioned. For example, to enhance the understanding of the proof, references such as "Now using formulas such and such ..." (for example on page 6) could be used. The details are left to the author's own judgement.
- Many long formulas extend to the margin of the page. This can be avoided by starting a new line, and/or putting the formulas in the displayed format.

Other Comments. The math symbols and texts look different, for example $f(q)$ vs. $f(q)$, or $p-k$ vs. $p-k$. Also for the omission inside a mathematical equation "... " ('cdots') is often preferred than "...". The consistent use of these could very often enhance the quality of presentation.