

[68r]

Ockham Park

Ripley

Surrey

Friday . 17th Dec^r ['1840' added in pencil by later reader]

Dear M^r De Morgan. This is very mathematical weather. When one cannot exercise one's muscles out of doors , one is peculiarly inclined to exercise one's brains in-doors. Accordingly I have been setting vigorously to work again , with much satisfaction.

But I am sorry to say that I am sadly obstinate [68v] about the Term at which Convergence begins for the Series (A) page 231 of Algebra, and which we thought had been made clear by you on Monday Evening . I must persist in thinking Convergence begins at $\frac{x^{33}}{2.3.4\dots 32.33}$, and I have enclosed my Demonstration of my view of the case, & which seems to me as clear as possible. —

At any rate this will show you at once where my blunder is ; if I have blundered, for I can hardly think I have, so very palpable [69r] does the proof appear to me.

The other night I had unluckily been 10 days or more without thinking about anything of the kind , and consequently the ['whole' inserted] thread of the argument was not present to me ; or I might have spared you & myself this

trouble now. __
I have thought with much
pleasure of my agreeable
evening on Monday ,__
mathematical & educational.

Yours most truly
A. A. Lovelace

[69v] [a child's scribbling?]