The whole question technically _when_ it's dialectical is
the relationship between mathematics and science, not
merely "in general" but most specifically at the present
stage of high tech. Nothing like that was present either
in Hegel's day or in Marx's. Hegel rejected mathematics
as any sort of method for philosophy, but he gave it high
ratings if you limited it to analytical problems. At that
point, however, it has reached the kind of high point
that actually signifies its collapse, that is to say, all
the pile-up of facts cannot answer the next stage.
to anticipate that, dialectics shows that it's not only
a method for philosophy, but a method for all objective
as well as subjective matters.

2 Marx went into it more concretely, and at the same
time more abstractly, by singling out second negativity --
negation of the negation -- to prove that they had not
been able to get beyond Newtonia physics because unless
you work out what is the absolute opposite, not just the
opposite, but that type which is the highest point of
contradiction. Just as it was necessary to see relation-
ships to move from bare addition and subtraction to
algebraic formulae and to geometric space, so it is
of the highest necessity to develop calculus by
working out the absolute opposite in the relationship
of what you held heretofore as against what you are aiming
at.

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In the case of Russia, what they were aiming at
in 1931 was how to get the ▓▓ Plan, to produce what it
is supposed to produce when they have no competition of
private capitalists to monkey with. They ▓▓▓▓ "found"
Marx's Mathematial Notebooks and tried to see what it said
about capitalism. And they found that the law of value
in explaining
▓▓▓▓▓▓▓▓▓▓▓▓▓ the class struggle, the exploitation
of labor needed, the despotic plan of capital running
into all sorts of contradictions in the competitive market
world when each capitalist makes his distinction regard-
less of what the others do. They therefore promptly
decided that the law of value is socialistic because they
don't have that market competition, internally, never mind
the world market. They therefore gave a very high
priority to mathematical science. To this day they have
the best of the world's scientists and the mathematical
studies begin in high school, if not grammar school.
To think that they cannot work out the computer because
they don't have all the ▓▓▓▓▓▓▓▓▓▓▓▓▓ mechanical machines
which the West,and more importantly Japan, has, is to
forget that they were the first to reach space with the
Sputnik, and that they now have a great deal more than we
                                          (more than)
have in space-stations and it will take/all the technology
for us to catch up.

The real concrete point is the state of militarization
that they have reached in armies and tanks to reach with
Star Wars, and what the Iceland collapse did was to give the
go sign to a deathly arms race between the two nuclear powers.

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11/5/86

Some <u>very</u> Rough Notes For a Letter <u>if</u> I will decide to write one, to Robert Cohen

1st, in relationship to it as a self-criticism of ourselves, not very full it is true, since I do not know computers or mathematics and in any case it would not be of interest to Cohen. But the point is that the self-clarification of ourselves on the question when a new phenomenon appears academically, how can dialectic method <u>directly</u> relate to that new phenomena.

2nd, as physicist can Cohen shed any light on the relationship between mathematics, natural science and history, <u>not</u> as mere fact but as to their meaning. Cohen didn't show that in his 2/15/85 note to Kevin where, 1st he thinks Bukharin is the issue to us because of its relevance to the scientific and technological revolution. No, it was of relevance because of his vulgar materialism <u>as shown specifically in the Plan, so that</u> <u>he wasn't the least conscious of the fact that what</u> <u>was the consequence of Plan, the scuttling of the law</u> <u>of value the following decade.</u> MUCH less that it would be preceded by the destruction of the "general staff"

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of the revolution, himself prominently included.

3rd, and the   central heart of the issue at hand,
is philosophically--that is, how can phillsophically--
show the process and direction ⋅⋅ for⋅ a particular science,
in this case mathematics/computers "resulting" from
calculus. The whole task I put before Franklin was
the specific quotation of the meaning ⋅⋅ of the changing
method, the transforming method, i.e., dialectics vs.
mathematics, the way KM used it in his Mathematiccal
Notebooks which Franklin quoted on p. 19 of High Tech
pamphlet, which talks about"differential calculus
appearing a sa specific type of calculation which already
operates independently on its   own ground. The
algebraic method therefore inverts itself into its
exact opposite, the differential method..."
I asked Franklin to continue thid question of transformation
into opposite, "derivative,""inversion"and "reversal of
roles",   "operational symbols" all the way to the
negation of the negation and not be diverted by
calculator lingo like algorithm and instead stick to
Hegel's synthetic method in that chapter two on the
Idea of Cognition in Section 3.

I felt that Franklin had caught, but noneof us
did, but was so modest about his "modification" that
we didn't notice*, I wanted him to tell me this time
exactly what happened. And this he wrote me on 11/4/86:
~~1st, at~~ June ~~1984~~   Ron had not used the words
limits at all, that he suddenly brought in in a modified
version in August 1984, footnote 9 on p. 6, he not only
introduces as if that were the point at issue was "limited
value", but says of Marx pointing "to the 'childishness'
of the assumption that the right result is attained by
hanging out in the right neighborhood...without taking
the plunge to   0" and then Ron expands the error:
"the point of no return is 'no limited value' but stands
by itself in a relation of equivalence. It's not so
much a 'limit' as a new beginning** which can itsekf
undergo differentiation.

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*The first (6/84) that Ron issued on his own
had a fantastic end of the title and that was that the
fetish of high tech that we was writing on Marx's MM
AND MARXIST-HUMANISM"S GREAT DVIDE. When did we ever
use in print Great Divide except for Lenin's PN during
world war I. Only once, did I use in a Archival sense
(probably some perspectives) that another Great Divide
could be said to bek in the 1980s as the designation of
Marxist-Humanism. But to say Marxist-Humanism's Great
Divide ex in a discussion bulletin of one, with no kx one
having seen that one which was so declared, is incredible.

**Please note how he misuses new beginnings! Not only is
it not a new beginning as we have made it a category of open
doors at the highest point, thm after the Absolute, but at the
best it could only be the beginning of the same type of thing.

Franklin calls attention that Marx did not only critisize Newton, that was the beginning of his historical study. "Ron ignored the second and third phases that Marx saw in the historical developmet,'rational'D'Alembart, and 'algebraic' La Grange. What I meant at the time was that Newton's method was not the method used by mathematicians today, when the critique of Marx did not apply.X I should have noted that Marx had a different critique of those two phases, and Ron should have showed what those criticisms were and what was newtoday as Marx didn't stop here Hegel stopped, with Newton and Liebniz."

Franklin also mentions that where Ron talks of "the limit that defines differentiation as 'the limit of dy/dx as dx approaches 0' this is wrong, because dy and dx are symbols introduced _after_ the limit is taken not before."

What Franklin ends with on the ~~questin~~ whole question being how does the function change, not just what is it at a certain point, would really require my digging into the philosophic critiques of rationalism before I can really write a letter, again if I do decide it should be written at all.

VIL's _PN_, p. 209-210 from chapter 2, 'Idea of Cognition', but first touched in Doctrine of Being, Section II On Quantity, VIL's PN p. 118.

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OVER

VII, p.117, on infinite mathematics
and refers to Engels.

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RSC

Dear Robert Cohen,

Suddenly, I remembered when first we met in Connecticut soon after M&F was published and I am sure I did not speak on the Absolute in your class, and I certainly did not have Hegel's three final syllogism in M&F, although I had worked on them in 1953. So you must have challenged me on the parrellism I drew on the Absolutes of revolution and counter-revolution. I do remember that when I was at your home you had Philosophy of Mind in your library and we then discussed those three final syllogisms. Now I know that it wasn't only becuase I didn't know about computers, and I doubt the computers in the 1950s were anywhere near center-stage that they are now.

Despite the fact that I know you didn't think our bulletin on Marx's Mathematical Manuscripts was any sort of important breakthrough, and you get referring in your letter in Kevin to "facts" as all that had been written on these Manuscripts, long before our bulletin. Of course I disagree with you, because I know very well what had been written, and I know very well that it was no Marxist-Humanist view point. Re But that is not what I want to argue about. What I wish you would help me with, and as a physicists you must know a great deal more than i do on the subject, is the direct relationship between what Marx did in the Mathematical Manuscripts on differential calculus and what is now the problem with the computer. And the Russian specs are doing the very same ting as the Western specs, trying to wish away the time lag between science and its "application" i.e. the production line.

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