

## 8.3: Varying Both Ends

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The argument given above for the incremental change in action from varying the endpoint is clearly equally valid for varying the beginning point of the integral (there will be a sign change, of course), so

*[Math Processing Error]*

The initial and final coordinates and times specify the action and the time development of the system uniquely.

(Note: We'll find this equation again in the section on canonical transformations -- the action will be seen there to be the generating function of the time-development canonical transformation, this will become clear when we get to it.)

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