The Nine Gates to the Revelation of the Mysteries of Calculus

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1. The mean value theorem.

2. The fundamental theorem of calculus.

3. Power series.

4. Curves and arc length.

5. The exponential and trigonometric functions, and Euler's formula.

6. The inverse function theorem in n variables (and surfaces).

7. The Fubini theorem for multidimensional integrals (and areas and volumes).

8. The change of variable formula for multidimensional integrals (and surface integrals).

9. Differential forms and the Stokes formula (and applications to analysis, geometry, and topology). (Also applications to physics, given in the author's PDE text.)