

George Simmons *Differential Equations with
Applications and Historical Notes*, **3rd edition**

Chapter 1. The Nature of Differential Equations. Separable
Equations.

1.6. The Brachistochrone

- 1.6.1.** Wren's Theorem (named for Christopher Wren [1632–1723], an English architect, astronomer, and mathematician involved in rebuilding Saint Paul's Cathedral after the Great Fire of London in 1666) states that the length of one arch of the cycloid of equation (9) is four times the diameter of the generating circle. Prove this.