

## SECTION OVERVIEW

### 6.4: Motion in which the Resistance is Proportional to the Square of the Speed

There are not really any new principles; it is just a matter of practice with slightly more difficult integrals. We assume that the resistive force per unit mass is  $k\dot{x}^2$ . Here, although  $k$  plays a somewhat similar role to the  $\gamma$  of Section 3, it is not exactly the same thing as  $\gamma$ , and indeed it is not dimensionally the same as  $\gamma$ . What are the dimensions, and the SI units, of  $k$ ?

#### Topic hierarchy

#### 6.4A: Resistive Force Only

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