

Chapter 4 Technology Application Projects

Mathematica/Maple Module

Motion Along a Straight Line: Position \rightarrow Velocity \rightarrow Acceleration

You will observe the shape of a graph through dramatic animated visualizations of the derivative relations among the position, velocity, and acceleration. Figures in the text can be animated.

Mathematica/Maple Module

Newton's Method: Estimate π to How Many Places?

Plot a function, observe a root, pick a starting point near the root, and use Newton's Iteration Procedure to approximate the root to a desired accuracy. The numbers π , e , and $\sqrt{2}$ are approximated.