This program stores and prints output at each dt step. As it uses simple rectangular integration, we would like to use a small value for dt to give sufficient accuracy. Modify the program to read a new variable NSTEP, and change its operation to store and print output only after each NSTEP iterations.

Run the new program for:

\[ \begin{align*}
TSTOP &= 25, \quad M = 100, \quad K = 100, \quad B = 50, \\
 dt &= 0.001, \quad NSTEP = 1000, \quad P0 = 10, \quad VEL = 0
\end{align*} \]

Load circuit plots of x2dot vs. time, xdot vs. time, and x vs. time.