Pseudocode for Problem1
Start
  - Initialize Parameters

  - Initialize Geometry Configuration
    - Initialize Mass Matrix M
    - Initialize Damping Matrix C
    - Initialize Weight Vector W

  - Time Stepping
    - For Each Time Step
      - Initialize q and u
      - Set Tolerance tol

      - While err > tol and n > 1
        - Compute Elastic Forces and Stiffness
        - Compute Viscous Force
        - Compute Weight Force
        - Solve for next q
        - Update err
      - End While

      - Update u
      - Update q0

      - Save Information
        - Save Mid-node Position and Velocity
        - Save Turning Angle

      - Plot Structure if Necessary

      - Increment Time Step
    - End Time Stepping

  - Plot Results
End

Pseudocode for Problem2
Start
  - Initialize Parameters

  - Initialize Geometry Configuration
    - Initialize Mass Matrix M
    - Initialize Damping Matrix C
    - Initialize Weight Vector W

  - Time Stepping
    - For Each Time Step
      - Initialize q and u
      - Set Tolerance tol

      - While err > tol and n > 1
        - Compute Elastic Forces and Stiffness
        - Compute Viscous Force
        - Compute Weight Force
        - Solve for next q
        - Update err
      - End While

      - Update u
      - Update q0

      - Save Information
        - Save Mid-node Position and Velocity

      - Plot Structure if Necessary

      - Increment Time Step
  - End Time Stepping

  - Plot Results

  - Display Terminal y-axis Velocity for Center Node
End

Problem3
Start
  - Initialize Parameters

  - Initialize Geometry Configuration
    - Initialize Mass Matrix M
    - Initialize Force Vector insertF
    - Initialize Weight Vector W

 - Time Stepping
   - For Each Time Step
     - Initialize q and u
     - Set Tolerance tol

     - While err > tol and n > 1
       - Compute Elastic Forces and Stiffness
       - Compute Viscous Force (commented out)
       - Compute Weight Force
       - Solve for next q
       - Update err
     - End While

     - Update u
     - Update q0

     - Save Information
       - Save Mid-node Position and Velocity
       - Compute and Save Maximum Vertical Displacement ymax

     - Plot Structure if Necessary

     - Increment Time Step
  - End Time Stepping

 - Plot Results

 - Display Terminal y-axis Velocity for Center Node

 - Plot Maximum Vertical Displacement over Time
End