

---

## Table of Contents

.....	1
.....	1
INITIALIZATION .....	1
.....	2
CALCULATIONS .....	2
.....	2
FORMATTED TEXT & FIGURE DISPLAYS .....	2
.....	2
COMMAND WINDOW OUTPUT .....	2
.....	2
ACADEMIC INTEGRITY STATEMENT .....	2

```
function PS07_sitstand_exec_sundara6_ful94

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% ENGR 132
% Program Description
% This function calls the sub UDF's which are the center of mass UDF
% and
% spring constant UDF.
%
% Function Call
%PS07_sitstand_exec_sundara6_ful94
%
% Input Arguments
%None
%
% Output Arguments
%None
% Assignment Information
%   Assignment:      PS 07, Problem 1
%   Author:          Arunkumar Sundararajan, sundara6@purdue.edu
%                   Yuefan Fu , ful94@purdue.edu
%   Team ID:         001-05
%   Contributor:     Name, login@purdue [repeat for each]
%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

---

## INITIALIZATION

```
secMass=[3.1,7.39,24.13]; %Input the mass of section
secLength=[0.421,0.432,0.8]; %Input the section length
centerOfMass=secLength.*[0.55,0.59,0.41]; %Input the center of mass
adjLength=0.75; % Adjustable length constant
```

---

## CALCULATIONS

```
[wzo1,wzo2]=PS06_sitstand_subUDF_fu194WZ(secMass,secLength,centerOfMass); %Function  
used to calculate scaled lengths and total mass of body  
xyo=PS06_sitstand_springs_sundara6X_gelmanY(wzo2,secLength,wzo1);%  
Function used to calculate spring stiffness
```

*The spring constant is 224.188170 N/m*

---

## FORMATTED TEXT & FIGURE DISPLAYS

```
fprintf('The center of mass is %f,%f,%f, and spring constant is, %f'  
,centerOfMass,xyo)
```

*The center of mass is 0.231550,0.254880,0.328000, and spring constant  
is, 224.188170*

---

## COMMAND WINDOW OUTPUT

```
PS07_sitstand_exec_sundara6_fu194
```

```
The spring constant is 224.188170 N/m The center of mass is 0.231550,0.254880,0.328000, and spring  
constant is, 224.188170
```

---

## ACADEMIC INTEGRITY STATEMENT

I/We have not used source code obtained from any other unauthorized source, either modified or unmodified. Neither have I/we provided access to my/our code to another. The project I/we am/are submitting is my/our own original work.

`end`

*Published with MATLAB® R2017a*