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```
%can-you-fall-faster-than-the-speed-of-sound/?redirectURL=https%3A%2F
%2Fwww.wired.com%2F2012%2F02%2Fstratos-spa…
%redbull.com/ca-en/red-bull-stratos-release-mission-data
%wired.com/2012/07/how-do-you-measure-the-stratos-space-jump
%wired.com/2012/07/analysis-of-a-red-bull-stratos-practice-jump
```

# ENSC180-Assignment2

```
% Student Name 1: Sepehr Borji

% Student 1 #: 123456781

% Student 1 userid (email): Sepehr_borji@sfu.ca

% Student Name 2: Akashroop Malhi

% Student 2 #: 301393341
% Student 2 userid (email): stu2 (asm19@sfu.ca)

% Below, edit to list any people who helped you with the assignment,
%       or put 'none' if nobody helped (the two of) you.

% Helpers: _everybody helped us/me with the assignment (list names or
 put 'none')__
```

# Instructions:

- Put your name(s), student number(s), userid(s) in the above section.

- Edit the "Helpers" line.

- Your group name should be "A2_<userid1>_<userid2>" (eg. A2_stu1_stu2)

- Form a group as described at: <https://courses.cs.sfu.ca/docs/students>

- Replace "% your work here" below, or similar, with your own answers and work.

- Nagvigate to the "PUBLISH" tab (located on top of the editor) * Click on the "Publish" dropdown and choose pdf as "Output file format" under "Edit Publishing Options..." * Click "Publish" button. Ensure a report is automatically generated

- You will submit THIS file (assignment2.m), and the PDF report (assignment2.pdf). Craig Scratchley, Spring 2021

# main

```matlab
function main

clf

% constants -- you can put constants for the program here
%MY_CONST = 123;'

g = -9.8;



% variables -- you can put variables for the program here
%myVar = 456;

% prepare the data
% <place your work here>
    Table = readtable('./data/data_clean_more_fixed_simplest.xlsx');
    data = table2array(Table);

% ... = xlsread()/csvread()/readtable()
% ...
% myVector(isnan(myVector))=[];

% <put here any conversions that are necessary>
```

# Part 1

Answer some questions here in these comments... How accurate is the model for the first portion of the minute? The height vs the height measured is quite similar, in fact they are almost identical to eachother for the first portion of the minute. We can also state the same for velocity, as they are almost identical again. However, the measured acceleration changes quite frequently but remains similar to the modelled acceleration. Therfore, all of models are quite similar to eachother for the first portion of the minute.

```
% How accurate is the model for the last portion of that first minute?
% The three models seems to differ at the start of the last portion of
 the
% first minute. This is where the values no longer overlap with
 eachother
% and you can see a difference between the modelled and measured
 values.

% Comment on the acceleration calculated from the measured data.
% Is there any way to smooth the acceleration calculated from the
 data?
% The function smoothdata() helps smooth the acceleration calculated
 from
% the data.

part = 1;
% model Felix Baumgartner's altitude, velocity, and acceleration for
 the
```

```matlab
%      first minute after he jumped from 38,969.4 meters above sea
 level
[T,M] = ode45(@fall, [0,60], [38959,0])


% <call here your function to create your plots>
plotComparisons(60, 'Part1 - Freefall', T, M)
```

T =

```
         0
    0.0000
    0.0000
    0.0000
    0.0000
    0.0000
    0.0001
    0.0001
    0.0001
    0.0003
    0.0004
    0.0005
    0.0006
    0.0013
    0.0019
    0.0026
    0.0032
    0.0064
    0.0096
    0.0128
    0.0160
    0.0320
    0.0480
    0.0640
    0.0800
    0.1601
    0.2401
    0.3202
    0.4002
    0.8004
    1.2006
    1.6008
    2.0010
    3.5010
    5.0010
    6.5010
    8.0010
    9.5010
   11.0010
   12.5010
   14.0010
   15.5010
   17.0010
```

```
18.5010
20.0010
21.5010
23.0010
24.5010
26.0010
27.5010
29.0010
30.5010
32.0010
33.5010
35.0010
36.5010
38.0010
39.5010
41.0010
42.5010
44.0010
45.5010
47.0010
48.5010
50.0010
51.5010
53.0010
54.5010
56.0010
57.0008
58.0005
59.0003
60.0000


M =

   1.0e+04 *

    3.8959         0
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
    3.8959   -0.0000
```

```
3.8959    -0.0000
3.8959    -0.0000
3.8959    -0.0000
3.8959    -0.0000
3.8959    -0.0000
3.8959    -0.0001
3.8959    -0.0001
3.8959    -0.0002
3.8959    -0.0002
3.8958    -0.0003
3.8958    -0.0004
3.8956    -0.0008
3.8952    -0.0012
3.8946    -0.0016
3.8939    -0.0020
3.8899    -0.0034
3.8836    -0.0049
3.8752    -0.0064
3.8645    -0.0078
3.8516    -0.0093
3.8366    -0.0108
3.8193    -0.0123
3.7998    -0.0137
3.7781    -0.0152
3.7542    -0.0167
3.7281    -0.0181
3.6997    -0.0196
3.6692    -0.0211
3.6365    -0.0226
3.6015    -0.0240
3.5644    -0.0255
3.5250    -0.0270
3.4835    -0.0284
3.4397    -0.0299
3.3937    -0.0314
3.3456    -0.0329
3.2952    -0.0343
3.2426    -0.0358
3.1878    -0.0373
3.1308    -0.0387
3.0716    -0.0402
3.0102    -0.0417
2.9465    -0.0432
2.8807    -0.0446
2.8127    -0.0461
2.7424    -0.0476
2.6700    -0.0490
2.5953    -0.0505
2.5185    -0.0520
2.4394    -0.0534
2.3581    -0.0549
2.3027    -0.0559
2.2463    -0.0569
2.1890    -0.0579
```

```
    2.1306    -0.0588
```

# Part 2

Answer some questions here in these comments... Estimate your uncertainty in the mass that you have chosen (at the beginning of the jump). After research, the combined mass that we found was 118kg. The mass included felix + pressure suit + helmet with Oxygen + parachute.

```
% How sensitive is the velocity and altitude reached after 60 seconds
 to
%    changes in the chosen mass?
% If we changed the mass to 116kg or 120kg in order to consider the
 chances
% of calculation error, we noticed that changing mass values leads to
% change in terminal velocity. (Shift up or down)

part = 2;
[T,M] = ode45(@fall, [0,60], [38959,0]);

% <call here your function to create your plots>
plotComparisons(60, 'Part2 - Simple Air Resistance', T, M)
```

# Part 3

Answer some questions here in these comments... Felix was wearing a pressure suit and carrying oxygen. Why? What can we say about the density of air in the stratosphere? How is the density of air different at around 39,000 meters than it is on the ground? The density of air near the top of the strtosphere is nearly zero. Here is our source: http://www.ccpo.odu.edu/SEES/ozone/class/Chap_6/6_2.htm#:~:text=The%20density%20of%20air%20near,with%20altitude%20and%20then%20increases. The density of air compared to the ground it close to 1.2 Felix needs to wear his own helmet with oxyge and pressure suit since there is a lack of atomosphere pressure and air which will allow him to die. There was a higher velocity at the higher stratosphere point, therefore Felix has a lower drag froce at 39000m. Therefore, we can conclude that the lower the altitude, the higher the density of air.

```
% What are the factors involved in calculating the density of air?
%     How do those factors change when we end up at the ground but
 start
%     at the stratosphere?  Please explain how calculating air density
 up
%     to the stratosphere is more complicated than say just in the
 troposphere.
% After research, the factors thaat involve calculating the density of
 air
% wa mainly pressure, temperature, and humidity. The air density
 formula
% includes, density of air, absolute pressure, specific gas constant,
 and
% absolute temperature.
% According to online researh, as we get closer to the ground, the
 values tend to converge towards one.
% What method(s) can we employ to estimate [the ACd] product?
```

```matlab
% What is your estimated [ACd] product?
% ACd = 0.889
%
% [Given what we are told in the textbook about the simple drag
 constant, b,]
%   does the estimate for ACd seem reasonable?
% We do not believe the estimate is reasonable.

part = 3;
[T,M] = ode45(@fall, [0,270], [39000,0]);


% <call here your function to create your plots>
plotComparisons(270, 'Part3: Drag', T, M);

Output argument "res" (and maybe others) not assigned during call to
 "assignment2/finding_ACd".

Error in assignment2/drag (line 297)
        CdA = finding_ACd(m);

Error in assignment2/acceleration (line 262)
        b = drag(t, y, v, m);

Error in assignment2/fall (line 240)
    dvdt = acceleration(t, y, v); % acceleration: the derivative of
 velocity w.r.t. time

Error in odearguments (line 90)
f0 = feval(ode,t0,y0,args{:});    % ODE15I sets args{1} to yp0.

Error in ode45 (line 115)
  odearguments(FcnHandlesUsed, solver_name, ode, tspan, y0, options,
 varargin);

Error in assignment2 (line 149)
[T,M] = ode45(@fall, [0,270], [39000,0]);
```

# Part 4

Answer some questions here in these comments... What is the actual gravitational field strength around 39,000 meters? (See Tipler Volume 1 6e page 369.) 9.688m/s^2 is the acceleration due to gravity at 39000m How sensitive is the altitude reached after 4.5 minutes to simpler and more complicated ways of modelling the gravitational field strength? The altitude is not very sensitive because using the formula grav = g_SEA*(r_earth^2)./(r_earth+y).^2 our value with 9.8 is already very close to one. Therefore, a change will not make a big difference.

```matlab
% What other changes could we make to our model? Refer to, or at least
%   attempt to explain, the physics behind any changes that you
 propose.
% We could find much more accurate data, this will allow use to have a
% smoother graph without any gaps in between.
```

```matlab
% What is a change that we could make to our model that would result
 in
%   insignificant changes to the altitude reached after 4.5 minutes?
% Any changes we make will allow the current data to change, therefore
 the
% results will be different.
% How can we decide what change is significant and what change is
%   insignificant?
% We can calculate error %, if there is a larger % of error, than it
 is a
% significant change.

% [What changes did you try out to improve the model?  (Show us your
 changes
%   even if they didn't make the improvement you hoped for.)]
% We tried to make the excel data a bit better, however it was quite
 hard,
% it filled in some of the gaps was had initially.

part = 4;
[T,M] = ode45(@fall, [0,270], [39000,0]);
plotComparisons(270, 'Part4: Universal Gravitation', T, M);
```

# Part 5

Answer some questions here in these comments... At what altitude does Felix pull the ripcord to deploy his parachute? About 2517 m, we looked when there was a big impact on velocity

```matlab
% Recalculate the CdA product with the parachute open, and modify your
%   code so that you use one CdA product before and one after this
 altitude.
%   According to this version of the model, what is the maximum
 magnitude
%   of acceleration that Felix experiences?
% <put your answer here in these comments>

%   How safe or unsafe would such an acceleration be for Felix?
% It would be extremely unsafe as the brain is deprived of oxygen.
 Felix's
% flesh would break due to stress, too much force.

part = 5;

%Make a single acceleration-plot figure that includes, for each of the
%model and the acceleration calculated from measurements, the moment
 when
%the parachute opens and the following 10 or so seconds. If you have
%trouble solving this version of the model, just plot the acceleration
%calculated from measurements.

%code for part 5 is in the plotComparison function.
```

# Part 6

Answer some questions here in these comments... How long does it take for Felix's parachute to open? [your answer here in these comments](#)

```matlab
part = 6;

%Redraw the acceleration figure from the previous Part but using the
 new
%   model. Also, using your plotting function from Part 1, plot the
%   measured/calculated data and the model for the entire jump from
%   stratosphere to ground.
% <place your work here>
```

# nested functions

nested functions below are required for the assignment. see Appendix B of Physical Modeling in MATLAB for discussion of nested functions

```matlab
function res = fall(t, X)
    %FALL <Summary of this function goes here>
    %   <Detailed explanation goes here>

    % do not modify this function unless required by you for some
 reason!

    y = X(1); % the first element is position
    v = X(2); % the second element is velocity

    dydt = v; % velocity: the derivative of position w.r.t. time
    dvdt = acceleration(t, y, v); % acceleration: the derivative of
 velocity w.r.t. time

    res = [dydt; dvdt]; % pack the results in a column vector
end

function res = acceleration(t, y, v)
    % <insert description of function here>
    % input...
    %   t: time
    %   y: altitude
    %   v: velocity
    % output...
    %   res: acceleration

    % do not modify this function unless required by you for some
 reason!

    grav = gravityEst(y);

    if part == 1 % variable part is from workspace of function main.
        res = -grav;
    else
```

```matlab
        m = mass(t, v);
        b = drag(t, y, v, m);

        f_drag = -b * v^2 * sign(v);
        a_drag = f_drag / m;
        res = -grav + a_drag;
    end
end

% Please paste in or type in code into the below functions as may be
 needed.

function grav = gravityEst(y)
    % estimate the acceleration due to gravity as a function of
 altitude, y
    g_SEA = 9.807;  % gravity at sea level in m/s^2

    if part <= 3;
        grav = g_SEA;
    else
        r_earth = 6371000; %in meters
        grav = g_SEA*(r_earth^2)./(r_earth+y).^2;
    end
end

function res = mass(t, v)

    res = 73 + 27 + 3.628 + 14;  %felix + pressure suit + helmet with
 Oxygen + parachute
end

function res = drag(t, y, v, m)
% <insert description of function here>

    if part == 2
        res = 0.2;
    else
        % air resistance drag = 1/2*rho*c_d*a = 1/2*rho*CdA
        %%%%%%%%%% input your code here %%%%%%%%%%%%%%%%
        CdA = finding_ACd(m);
        rho = stdatmo(y);
        res = 1/2*rho*CdA;

    end
end

function res = ACd_Calculator(h, v_terminal, m)
    rho = stdatmo(h);
    g = gravityEst(h);
    res = 2*(g).*m./rho*v_terminal.^2;

end

function res = finding_ACd(m)
```

```matlab
            h = 27833;
            v_terminal = 1357.6;
            before_Parachute = ACd_Calculator(h, v_terminal, m);

    end
```

# Additional nested functions

Nest any other functions below.

```matlab
%Do not put functions in other files when you submit, except you can
 use
%    the stdatmo function in file stdatmo.m which has been provided to
 you.
function res = plotComparisons(x, mytitle, T, M)

    % time indexes for max time = x
    for k = 1:length(T)
        if T(k) == x
            t = 1:k; % indexes only from the start of the fall until x
 seconds
            break
        end
    end
    % position/velocity indexes for max time = x using first column
 entries of M
    y = [];
    v = [];
    nb = [];
    %time_index=find(t_data >= time);
    %plot(t_data(1:time_index_min)
    %alt_data(1:time_index_min), 'b-');
    %plot(T,M(:,1),'r-');
    %hold on;
```

# Preprocessing - fill missing data using simple linear interpolation

```matlab
    %idx = 1:length(data)-1;

    %[t_data, ~] = fillmissing(t_data,'linear','SamplePoints',idx);

    %[alt_data, ~] = fillmissing(alt_data,'linear','SamplePoints',idx);

    %[vel_data, ~] = fillmissing(vel_data,'linear','SamplePoints',idx);

    b = smoothdata((data(:,3)));
    plot(diff(b)./diff(t))
    for k = 1:length(t)
        y = [y M(k,1)];
        v = [v M(k,2)];
        nb = [nb b(k)]
```

```matlab
    end
    % subplot for model of position
    figure;
    subplot(3,1,1);

    xlabel('s');
    ylabel('m');
    hold on
    title(mytitle,'Altitude')
    plot(t,y,'r-')
    % subplot for experimental data of position
    a = (data(:,2));
    plot(a,'b-')
    legend('Modeled','Actual')
    hold off


    % subplot for model of velocity
    subplot(3,1,2);
    hold on
    xlabel('s');
    ylabel('m/s');
    plot(t,v,'r-')
    title(mytitle,'Velocity')
    % subplot for experimental data of velocity
    b = smoothdata((data(:,3)));
    plot(b,'b-')
    legend('Modeled', 'Actual')
    hold off


    % subplot for model of acceleration
    subplot(3,1,3);

    xlabel('s');
    ylabel('m/s^2');
    hold on
    plot(diff(v)./diff(t))
    % FILL IN COMMANDS
    title(mytitle,'Acceleration')
    % subplot for measured acceleration
    syms x
    plot(diff(nb)./diff(t))
    legend('Modeled','Actual')
    hold off


nb =

   874.2853


nb =
```

```
  874.2853   874.6304


nb =

  874.2853   874.6304   874.9743


nb =

  874.2853   874.6304   874.9743   875.3177


nb =

  874.2853   874.6304   874.9743   875.3177   875.6598


nb =

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007


nb =

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404


nb =

  Columns 1 through 7

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

  Column 8

  876.6789


nb =

  Columns 1 through 7

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

  Columns 8 through 9

  876.6789   877.0161


nb =

  Columns 1 through 7
```

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 10*

*876.6789   877.0161   877.3528*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 11*

*876.6789   877.0161   877.3528   877.6891*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 12*

*876.6789   877.0161   877.3528   877.6891   878.0248*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 13*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Column 15*

*879.0313*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 16*

  *879.0313   879.3658*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 17*

  *879.0313   879.3658   879.6999*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 18*

*879.0313   879.3658   879.6999   880.0341*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 19*

  *879.0313   879.3658   879.6999   880.0341   880.3679*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 20*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Column 22*

*881.3678*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 23*

*881.3678   881.7004*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 24*

*881.3678   881.7004   882.0325*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 25*

*881.3678   881.7004   882.0325   882.3642*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 26*

*881.3678   881.7004   882.0325   882.3642   882.6960*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 27*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Column 29*

  *883.6888*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

Columns 22 through 28

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

Columns 29 through 30

883.6888  884.0187

nb =

  Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

  Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

  Columns 15 through 21

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

  Columns 22 through 28

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

  Columns 29 through 31

883.6888  884.0187  884.3489

nb =

  Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

  Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

  Columns 15 through 21

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

  Columns 22 through 28

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

  Columns 29 through 32

*883.6888    884.0187    884.3489    884.6786*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 33*

*883.6888    884.0187    884.3489    884.6786    885.0079*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 34*

*883.6888    884.0187    884.3489    884.6786    885.0079    885.3367*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Column 36*

  *885.9943*

  *nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 37*

*885.9943   886.3223*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Columns 36 through 38*

  *885.9943   886.3223   886.6500*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

*Columns 22 through 28*

*881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583*

*Columns 29 through 35*

*883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657*

*Columns 36 through 39*

*885.9943  886.3223  886.6500  886.9771*

*nb =*

*Columns 1 through 7*

*874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

*Columns 8 through 14*

*876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

*Columns 15 through 21*

*879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

*Columns 22 through 28*

*881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583*

*Columns 29 through 35*

*883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657*

*Columns 36 through 40*

*885.9943  886.3223  886.6500  886.9771  887.3031*

*nb =*

*Columns 1 through 7*

*874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

*Columns 8 through 14*

*876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 41*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Columns 36 through 42*

  *885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

```
Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Column 43

888.2760
```

*nb =*

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 44

888.2760   888.5987
```

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 45*

*888.2760   888.5987   888.9202*


*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529*

*Columns 43 through 46*

*888.2760    888.5987    888.9202    889.2406*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 35*

*883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657*

*Columns 36 through 42*

*885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529*

*Columns 43 through 47*

*888.2760    888.5987    888.9202    889.2406    889.5605*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

*Columns 29 through 35*

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

*Columns 36 through 42*

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

*Columns 43 through 48*

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792

*nb =*

*Columns 1 through 7*

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

*Columns 8 through 14*

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

*Columns 15 through 21*

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

*Columns 22 through 28*

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

*Columns 29 through 35*

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

*Columns 36 through 42*

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

*Columns 43 through 49*

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

*nb =*

*Columns 1 through 7*

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

*Columns 8 through 14*

876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963

*Columns 15 through 21*

879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348

*Columns 22 through 28*

881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583

*Columns 29 through 35*

883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657

*Columns 36 through 42*

885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529

*Columns 43 through 49*

888.2760    888.5987    888.9202    889.2406    889.5605    889.8792    890.1967

*Column 50*

890.5138

*nb =*

*Columns 1 through 7*

874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404

*Columns 8 through 14*

876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963

*Columns 15 through 21*

879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348

*Columns 22 through 28*

881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583

*Columns 29 through 35*

883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657

*Columns 36 through 42*

885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 51*

*890.5138   890.8298*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 52*

*890.5138   890.8298   891.1453*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 53*

*890.5138   890.8298   891.1453   891.4596*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 54*

*890.5138   890.8298   891.1453   891.4596   891.7728*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 55*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Column 57*

*892.7076*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 58*

*892.7076   893.0176*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

*Columns 22 through 28*

*881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583*

*Columns 29 through 35*

*883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657*

*Columns 36 through 42*

*885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529*

*Columns 43 through 49*

*888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967*

*Columns 50 through 56*

*890.5138  890.8298  891.1453  891.4596  891.7728  892.0856  892.3972*

*Columns 57 through 59*

*892.7076  893.0176  893.3265*

*nb =*

*Columns 1 through 7*

*874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

*Columns 8 through 14*

*876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

*Columns 15 through 21*

*879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

*Columns 22 through 28*

*881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583*

*Columns 29 through 35*

*883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657*

*Columns 36 through 42*

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 49

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

Columns 50 through 56

890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972

Columns 57 through 60

892.7076   893.0176   893.3265   893.6342

nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 49

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

Columns 50 through 56

890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972

Columns 57 through 61

892.7076   893.0176   893.3265   893.6342   893.9415

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Columns 36 through 42*

  *885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

  *Columns 43 through 49*

  *888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

  *Columns 50 through 56*

  *890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

  *Columns 57 through 62*

  *892.7076   893.0176   893.3265   893.6342   893.9415   894.2477*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

*Columns 29 through 35*

883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657

*Columns 36 through 42*

885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529

*Columns 43 through 49*

888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967

*Columns 50 through 56*

890.5138  890.8298  891.1453  891.4596  891.7728  892.0856  892.3972

*Columns 57 through 63*

892.7076  893.0176  893.3265  893.6342  893.9415  894.2477  894.5527

*nb =*

*Columns 1 through 7*

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

*Columns 8 through 14*

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

*Columns 15 through 21*

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

*Columns 22 through 28*

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

*Columns 29 through 35*

883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657

*Columns 36 through 42*

885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529

*Columns 43 through 49*

888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Column 64*

*894.8573*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 65*

*894.8573   895.1608*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 66*

*894.8573   895.1608   895.4639*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 35*

*883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657*

*Columns 36 through 42*

*885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529*

*Columns 43 through 49*

*888.2760    888.5987    888.9202    889.2406    889.5605    889.8792    890.1967*

*Columns 50 through 56*

*890.5138    890.8298    891.1453    891.4596    891.7728    892.0856    892.3972*

*Columns 57 through 63*

*892.7076    893.0176    893.3265    893.6342    893.9415    894.2477    894.5527*

*Columns 64 through 67*

*894.8573    895.1608    895.4639    895.7658*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 68*

*894.8573   895.1608   895.4639   895.7658   896.0666*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972

*Columns 57 through 63*

892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527

*Columns 64 through 69*

894.8573   895.1608   895.4639   895.7658   896.0666   896.3669

*nb =*

*Columns 1 through 7*

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

*Columns 8 through 14*

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

*Columns 15 through 21*

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

*Columns 22 through 28*

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

*Columns 29 through 35*

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

*Columns 36 through 42*

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

*Columns 43 through 49*

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

*Columns 50 through 56*

890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972

*Columns 57 through 63*

892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527

*Columns 64 through 70*

894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Columns 36 through 42*

  *885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

  *Columns 43 through 49*

  *888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

  *Columns 50 through 56*

  *890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

  *Columns 57 through 63*

  *892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

  *Columns 64 through 70*

  *894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

  *Column 71*

  *896.9650*


*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 35*

*883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657*

*Columns 36 through 42*

*885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529*

*Columns 43 through 49*

*888.2760    888.5987    888.9202    889.2406    889.5605    889.8792    890.1967*

*Columns 50 through 56*

*890.5138    890.8298    891.1453    891.4596    891.7728    892.0856    892.3972*

*Columns 57 through 63*

*892.7076    893.0176    893.3265    893.6342    893.9415    894.2477    894.5527*

*Columns 64 through 70*

*894.8573    895.1608    895.4639    895.7658    896.0666    896.3669    896.6662*

*Columns 71 through 72*

*896.9650    897.2635*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

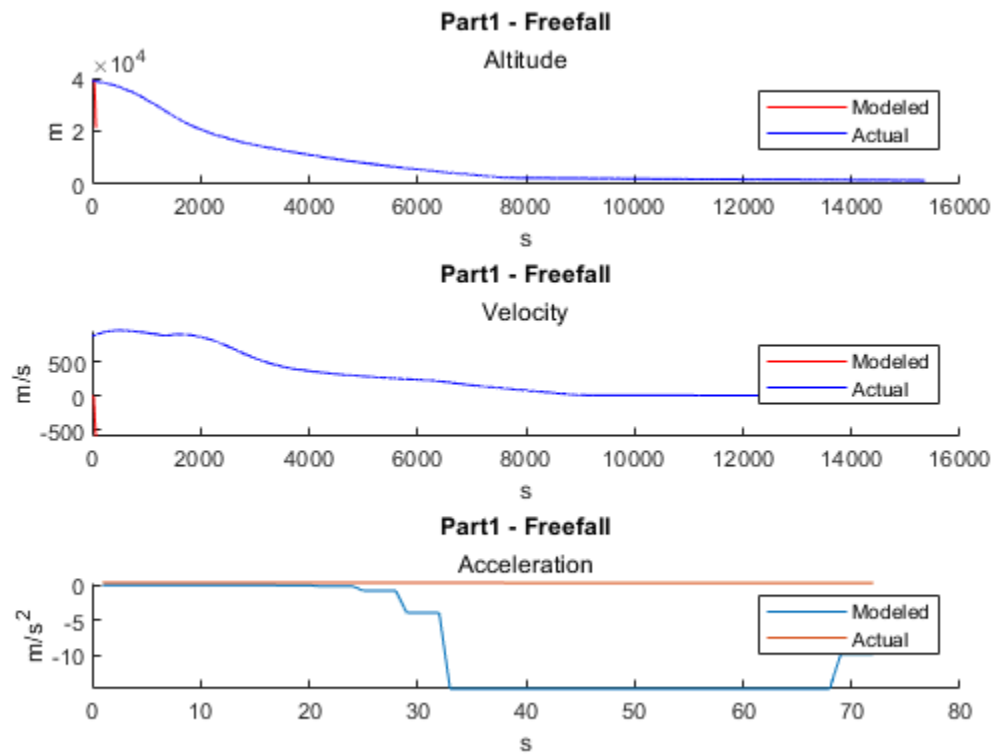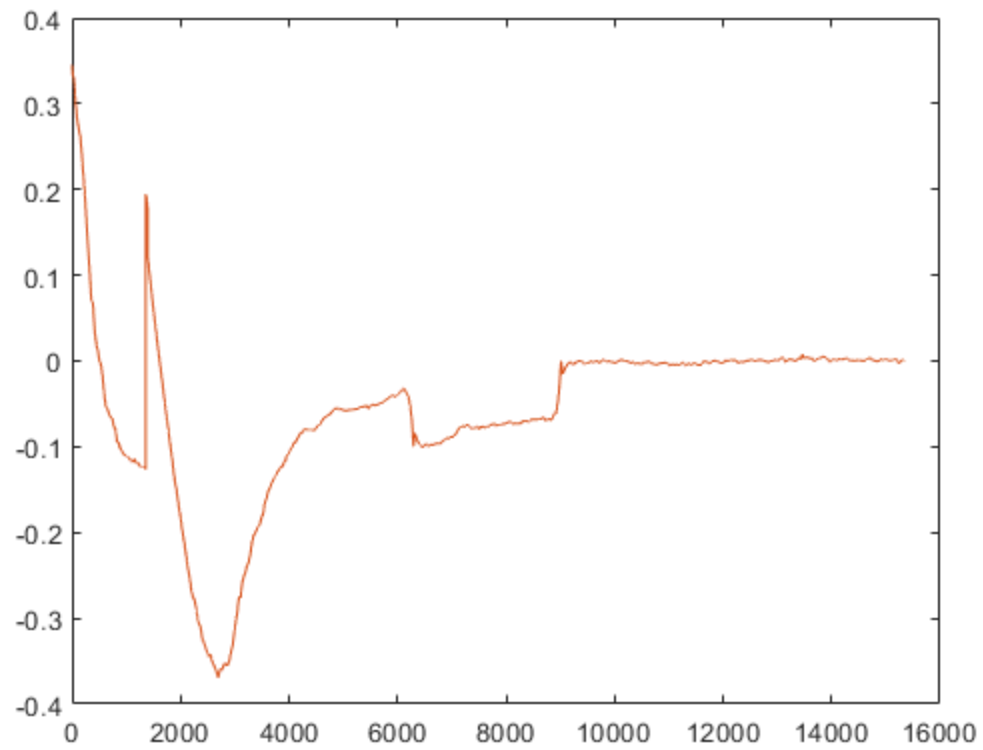*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 70*

*894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

*Columns 71 through 73*

*896.9650   897.2635   897.5608*

**Part1 - Freefall**
Altitude



**Part1 - Freefall**
Velocity



**Part1 - Freefall**
Acceleration

```
nb =

  874.2853


nb =

  874.2853   874.6304


nb =

  874.2853   874.6304   874.9743


nb =

  874.2853   874.6304   874.9743   875.3177


nb =

  874.2853   874.6304   874.9743   875.3177   875.6598


nb =

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007


nb =

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404


nb =

  Columns 1 through 7

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

  Column 8

  876.6789


nb =

  Columns 1 through 7

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

  Columns 8 through 9
```

*876.6789   877.0161*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 10*

  *876.6789   877.0161   877.3528*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 11*

  *876.6789   877.0161   877.3528   877.6891*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 12*

  *876.6789   877.0161   877.3528   877.6891   878.0248*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 13*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

```
Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963


nb =

Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

Column 15

879.0313


nb =

Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

Columns 15 through 16

879.0313  879.3658


nb =

Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

Columns 15 through 17

879.0313  879.3658  879.6999


nb =

Columns 1 through 7
```

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 18

879.0313   879.3658   879.6999   880.0341


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 19

879.0313   879.3658   879.6999   880.0341   880.3679


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 20

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

*nb =*

  *Columns 1 through 7*

  *874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

  *Columns 8 through 14*

  *876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

  *Columns 15 through 21*

  *879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

  *Column 22*

  *881.3678*

*nb =*

  *Columns 1 through 7*

  *874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

  *Columns 8 through 14*

  *876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

  *Columns 15 through 21*

  *879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

  *Columns 22 through 23*

  *881.3678  881.7004*

*nb =*

  *Columns 1 through 7*

  *874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

  *Columns 8 through 14*

  *876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

  *Columns 15 through 21*

  *879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

*Columns 22 through 24*

*881.3678   881.7004   882.0325*


*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 25*

  *881.3678   881.7004   882.0325   882.3642*


*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 26*

  *881.3678   881.7004   882.0325   882.3642   882.6960*


*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 27*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Column 29*

*883.6888*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 30*

*883.6888   884.0187*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 31*

*883.6888   884.0187   884.3489*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 32

883.6888   884.0187   884.3489   884.6786

nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 33

883.6888   884.0187   884.3489   884.6786   885.0079

nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 34

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Column 36*

  *885.9943*

*nb =*

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 37

885.9943   886.3223
```

nb =

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 38

885.9943   886.3223   886.6500
```

nb =

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 39

885.9943   886.3223   886.6500   886.9771
```

nb =

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 40

885.9943   886.3223   886.6500   886.9771   887.3031
```

nb =

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 41

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529


nb =
```

```
Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Column 43

888.2760


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42
```

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 44

888.2760   888.5987


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 45

888.2760   888.5987   888.9202


nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 46*

*888.2760   888.5987   888.9202   889.2406*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 47*

*888.2760   888.5987   888.9202   889.2406   889.5605*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 48

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792

nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 49

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

  *883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

  *Columns 36 through 42*

  *885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

  *Columns 43 through 49*

  *888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

  *Column 50*

  *890.5138*

*nb =*

  *Columns 1 through 7*

  *874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

  *Columns 8 through 14*

  *876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

  *Columns 15 through 21*

  *879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

  *Columns 22 through 28*

  *881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

  *Columns 29 through 35*

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 49

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

Columns 50 through 51

890.5138   890.8298

nb =

Columns 1 through 7

874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

Columns 8 through 14

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 49

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

Columns 50 through 52

890.5138   890.8298   891.1453

nb =

Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

Columns 15 through 21

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

Columns 22 through 28

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

Columns 29 through 35

883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657

Columns 36 through 42

885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529

Columns 43 through 49

888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967

Columns 50 through 53

890.5138  890.8298  891.1453  891.4596

nb =

Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

Columns 15 through 21

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

Columns 22 through 28

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

Columns 29 through 35

883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 54*

*890.5138   890.8298   891.1453   891.4596   891.7728*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 55*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Column 57*

*892.7076*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 58*

*892.7076   893.0176*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 59*

*892.7076   893.0176   893.3265*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 60*

*892.7076   893.0176   893.3265   893.6342*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 61*

*892.7076   893.0176   893.3265   893.6342   893.9415*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 62*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

Columns 15 through 21

879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

Columns 22 through 28

881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

Columns 29 through 35

883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

Columns 36 through 42

885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529

Columns 43 through 49

888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967

Columns 50 through 56

890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972

Columns 57 through 63

892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527

nb =

  Columns 1 through 7

  874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404

  Columns 8 through 14

  876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963

  Columns 15 through 21

  879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348

  Columns 22 through 28

  881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583

  Columns 29 through 35

  883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Column 64*

*894.8573*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 65*

*894.8573   895.1608*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 66*

*894.8573   895.1608   895.4639*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 67*

*894.8573   895.1608   895.4639   895.7658*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 68*

*894.8573   895.1608   895.4639   895.7658   896.0666*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529

Columns 43 through 49

888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967

Columns 50 through 56

890.5138  890.8298  891.1453  891.4596  891.7728  892.0856  892.3972

Columns 57 through 63

892.7076  893.0176  893.3265  893.6342  893.9415  894.2477  894.5527

Columns 64 through 69

894.8573  895.1608  895.4639  895.7658  896.0666  896.3669

nb =

Columns 1 through 7

874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404

Columns 8 through 14

876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963

Columns 15 through 21

879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348

Columns 22 through 28

881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583

Columns 29 through 35

883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657

Columns 36 through 42

885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529

Columns 43 through 49

888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967

Columns 50 through 56

890.5138  890.8298  891.1453  891.4596  891.7728  892.0856  892.3972

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 70*

*894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 70*

*894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

*Column 71*

*896.9650*

*nb =*

  *Columns 1 through 7*

  *874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

  *Columns 8 through 14*

  *876.6789  877.0161  877.3528  877.6891  878.0248  878.3608  878.6963*

  *Columns 15 through 21*

  *879.0313  879.3658  879.6999  880.0341  880.3679  880.7012  881.0348*

  *Columns 22 through 28*

  *881.3678  881.7004  882.0325  882.3642  882.6960  883.0274  883.3583*

  *Columns 29 through 35*

  *883.6888  884.0187  884.3489  884.6786  885.0079  885.3367  885.6657*

  *Columns 36 through 42*

  *885.9943  886.3223  886.6500  886.9771  887.3031  887.6286  887.9529*

  *Columns 43 through 49*

  *888.2760  888.5987  888.9202  889.2406  889.5605  889.8792  890.1967*

  *Columns 50 through 56*

  *890.5138  890.8298  891.1453  891.4596  891.7728  892.0856  892.3972*

  *Columns 57 through 63*

  *892.7076  893.0176  893.3265  893.6342  893.9415  894.2477  894.5527*

  *Columns 64 through 70*

  *894.8573  895.1608  895.4639  895.7658  896.0666  896.3669  896.6662*

  *Columns 71 through 72*

  *896.9650  897.2635*

*nb =*

  *Columns 1 through 7*

  *874.2853  874.6304  874.9743  875.3177  875.6598  876.0007  876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 70*

*894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

*Columns 71 through 73*

*896.9650   897.2635   897.5608*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 70*

*894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

*Columns 71 through 74*

*896.9650   897.2635   897.5608   897.8576*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657*

*Columns 36 through 42*

*885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529*

*Columns 43 through 49*

*888.2760    888.5987    888.9202    889.2406    889.5605    889.8792    890.1967*

*Columns 50 through 56*

*890.5138    890.8298    891.1453    891.4596    891.7728    892.0856    892.3972*

*Columns 57 through 63*

*892.7076    893.0176    893.3265    893.6342    893.9415    894.2477    894.5527*

*Columns 64 through 70*

*894.8573    895.1608    895.4639    895.7658    896.0666    896.3669    896.6662*

*Columns 71 through 75*

*896.9650    897.2635    897.5608    897.8576    898.1541*

*nb =*

*Columns 1 through 7*

*874.2853    874.6304    874.9743    875.3177    875.6598    876.0007    876.3404*

*Columns 8 through 14*

*876.6789    877.0161    877.3528    877.6891    878.0248    878.3608    878.6963*

*Columns 15 through 21*

*879.0313    879.3658    879.6999    880.0341    880.3679    880.7012    881.0348*

*Columns 22 through 28*

*881.3678    881.7004    882.0325    882.3642    882.6960    883.0274    883.3583*

*Columns 29 through 35*

*883.6888    884.0187    884.3489    884.6786    885.0079    885.3367    885.6657*

*Columns 36 through 42*

*885.9943    886.3223    886.6500    886.9771    887.3031    887.6286    887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

*Columns 57 through 63*

*892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527*

*Columns 64 through 70*

*894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662*

*Columns 71 through 76*

*896.9650   897.2635   897.5608   897.8576   898.1541   898.4495*

*nb =*

*Columns 1 through 7*

*874.2853   874.6304   874.9743   875.3177   875.6598   876.0007   876.3404*

*Columns 8 through 14*

*876.6789   877.0161   877.3528   877.6891   878.0248   878.3608   878.6963*

*Columns 15 through 21*

*879.0313   879.3658   879.6999   880.0341   880.3679   880.7012   881.0348*

*Columns 22 through 28*

*881.3678   881.7004   882.0325   882.3642   882.6960   883.0274   883.3583*

*Columns 29 through 35*

*883.6888   884.0187   884.3489   884.6786   885.0079   885.3367   885.6657*

*Columns 36 through 42*

*885.9943   886.3223   886.6500   886.9771   887.3031   887.6286   887.9529*

*Columns 43 through 49*

*888.2760   888.5987   888.9202   889.2406   889.5605   889.8792   890.1967*

*Columns 50 through 56*

*890.5138   890.8298   891.1453   891.4596   891.7728   892.0856   892.3972*

```
Columns 57 through 63

892.7076   893.0176   893.3265   893.6342   893.9415   894.2477   894.5527

Columns 64 through 70

894.8573   895.1608   895.4639   895.7658   896.0666   896.3669   896.6662

Columns 71 through 77

896.9650   897.2635   897.5608   897.8576   898.1541   898.4495   898.7444
```
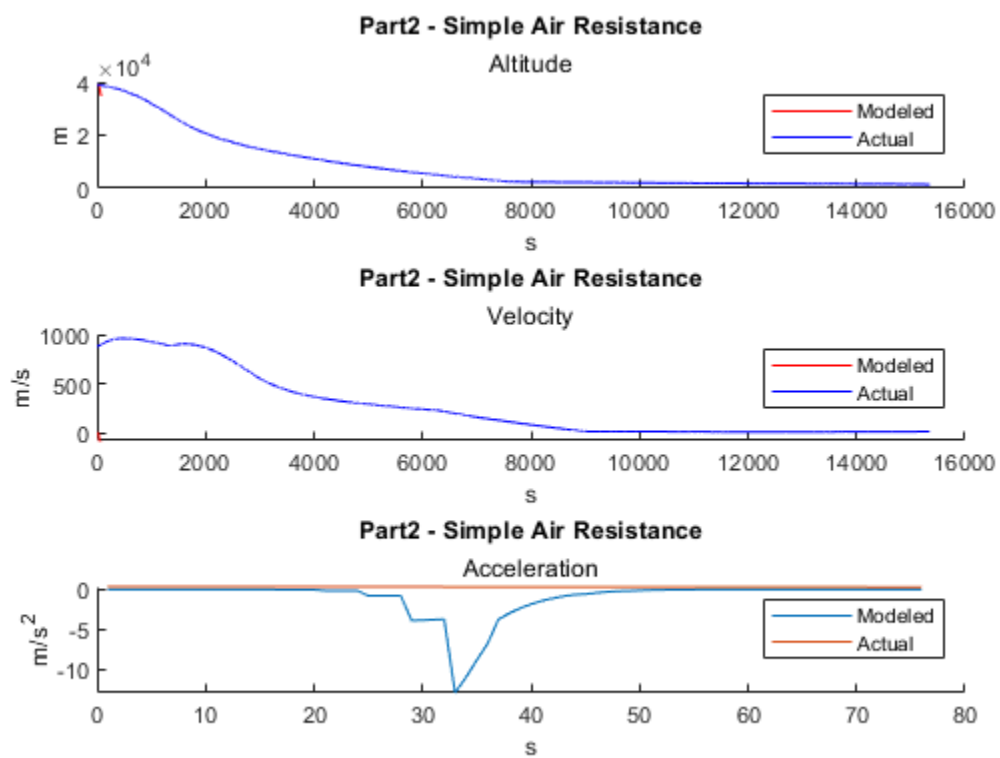


```
end

% end of nested functions

end % closes function main.
```

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