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% Christopher Brant   ENGR 1410-625   2/15/16
% Assignment A9
```

```
clear
clc
```

Problem 1: Blood Pressure

Problem Statement: Write a program that will take a user's age and blood pressure readings into account, and determine if they have high blood pressure.

```
% age = input('Input your age: ');
% SBP = input('\nInput your Systolic Blood Pressure: ');
% DBP = input('\nInput your Diastolic Blood Pressure: ');
age = 20;
SBP = 100;
DBP = 100;

YmaxSBP = 120;
OmaxSBP = 132;
YmaxDBP = 81;
OmaxDBP = 83;
if age > 24 || age < 15
    error('Program Terminated: You should not use this method of
    diagnosis at your age');
elseif age <=19
    if SBP > YmaxSBP || DBP > YmaxDBP
        diagnosis = 'you have high blood pressure';
    else
        diagnosis = 'you have normal blood pressure';
    end
else
    if SBP > OmaxSBP || DBP > OmaxDBP
        diagnosis = 'you have high blood pressure';
    else
        diagnosis = 'you have normal blood pressure';
    end
end

fprintf('\nYour diagnosis is that %s.\n\n', diagnosis);
```

Your diagnosis is that you have high blood pressure.

Problem 2: ICA 19-12

Problem Statement: Create a program that determines whether or not a person is qualified to ride different rides at an amusement park.

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% The printed lines including the names of each section are only
% added as
% a way of verifying which response statement corresponds to which
% ride.

% a) The Spinning Beast
% A = input('How old are you? ');
% H = input('How tall are you in inches? ');
% HC = input('Do you have a heart condition? ', 's');
% P = input('If you are pregnant respond with a 1. If not, enter 0.
% ');
A = 15;
H = 65;
HC = 'no';
P = 0;
fprintf('The Spinning Beast');
if A < 17 || H < 62 || (strcmpi('Yes', HC) == 1) || P == 1
    fprintf('\nSorry, you cannot ride this ride\n');
end

% b) The Lame Train
% A = input('How old are you? ');
% H = input('How tall are you in inches? ');
A = 9;
H = 50;
fprintf('The Lame Train');
if A > 8 && H > 40
    fprintf('\nSorry, you cannot ride this ride\n');
end

% c) The MATLAB House of Horror
% A = input('How old are you? ');
% HC = input('Do you have a heart condition? ', 's');
A = 21;
HC = 'no';
fprintf('The MATLAB House of Horror');
if A >= 17 || (strcmpi('No', HC) == 1)
    fprintf('\nWelcome to the MATLAB House of Horror!\n');
end

% d) The Neck Snapper
% A = input('How old are you? ');
% H = input('How tall are you in inches? ');
% HC = input('Do you have a heart condition? ', 's');
% P = input('If you are pregnant respond with a 1. If not, enter 0.
% ');
A = 17;
H = 72;
HC = 'no';
P = 1;
fprintf('The Neck Snapper');
if A >= 16 && H > 65 && ((strcmpi('Yes', HC) == 0) || P == 0)
    fprintf('\nWelcome to The Neck Snapper!\n');
end

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% e) The Bouncy Bunny
% A = input('How old are you? ');
A = 5;
fprintf('The Bouncy Bunny')
if A >= 3 && A <= 6
    fprintf('\nThis ride is made just for you!\n');
end
```

```
The Spinning Beast
Sorry, you cannot ride this ride
The Lamé Train
Sorry, you cannot ride this ride
The MATLAB House of Horror
Welcome to the MATLAB House of Horror!
The Neck Snapper
Welcome to The Neck Snapper!
The Bouncy Bunny
This ride is made just for you!
```

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