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```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Course Number: ENGR 13300
% Semester: e.g. Fall 2024
%
% Problem Description: Add the problem description here and delete this
%                       line.
%
% Assignment Information
%   Assignment:      13.1.2 Mat Pre 2
%   Author:         Leo Yu, yu1398@purdue.edu
%   Team ID:        LC18_03
%   Date:           10/28/2024
%
% Contributor:      Name, login@purdue [repeat for each]
% My contributor(s) helped me:
%   [ ] understand the assignment expectations without
%       telling me how they will approach it.
%   [ ] understand different ways to think about a solution
%       without helping me plan my solution.
%   [ ] think through the meaning of a specific error or
%       bug present in my code without looking at my code.
% Note that if you helped somebody else with their code, you
% have to list that person as a contributor here as well.
%
% Academic Integrity Statement:
%   I have not used source code obtained from any unauthorized
%   source, either modified or unmodified; nor have I provided
%   another student access to my code.  The project I am
%   submitting is my own original work.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

---

# While Loop

## INITIALIZATION

```
x = 0;
```

# While Loop

## CALCULATIONS

```
while x < 11
    x = x + 1;
    y = 4 * x + 5;
    fprintf('The value of x = %d. The value of y = %d.\n', x, y)
end
```

```
The value of x = 1. The value of y = 9.
The value of x = 2. The value of y = 13.
The value of x = 3. The value of y = 17.
The value of x = 4. The value of y = 21.
The value of x = 5. The value of y = 25.
The value of x = 6. The value of y = 29.
The value of x = 7. The value of y = 33.
The value of x = 8. The value of y = 37.
The value of x = 9. The value of y = 41.
The value of x = 10. The value of y = 45.
The value of x = 11. The value of y = 49.
```

# For Loop

## INITIALIZATION

```
k = linspace(1, 10 ,5);
```

# For Loop

## CALCULATIONS

```
for element = k
    s = element * 2;
    fprintf('The value of s = %.1f\n', s)
end
```

```
The value of s = 2.0
The value of s = 6.5
The value of s = 11.0
```

---

*The value of  $s = 15.5$   
The value of  $s = 20.0$*

## OUTPUTS

*Published with MATLAB® R2024b*