while loop

• Syntax:

```matlab
while <a specified condition is true>
    Matlab commands
    This may be several lines
    Repeat this set of commands until the condition is no longer true
end
```

• Usually used when you do NOT know how many times you may need to repeat the given Matlab commands.

while loop continued

• **Step 1:** Identify the specified condition (test) that must be TRUE to STOP the operation.

• **Step 2:** Use the OPPOSITE form of the test in Step 1 as the while loop condition statement.

• **Step 3:** Set up a way of changing (incrementing) the test condition INSIDE the while loop so that the loop will eventually end. Set up calculations.

• **Step 4:** BEFORE the while loop, set up (initialize) all necessary variables so the test condition and all calculations will evaluate properly the first time.