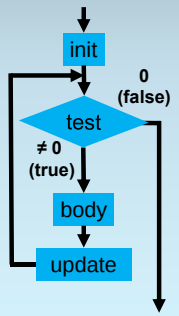
Identify All Reasons for Stopping the Iteration

0. What is the task that you're repeating?
1. What is true at the start of "test" in each iteration?
2. When does the iteration stop (what is "test")?

You may have more than one answer.



Examples of Multiple Stopping Conditions

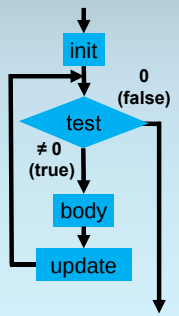
Type a number using the keyboard.
- Stop when **user presses <Enter>**.
- Stop when **user presses a non-digit**.
- Stop when **number overflows**.

Find the first letter 'A' in a string.
- Stop when **first 'A' is found**.
- Stop at **end of string**.

What Happens When the Iteration Stops?

3. What should be done when iteration stops?

Answer may be different for different stopping conditions.



Set Up for the First Iteration with Init

3. What should be done when iteration stops?
4. How do you set up for the loop (what is "init")?

Initialization must ensure that invariants hold for first iteration.