5.05 Study Guide

Input Boxes

**Input box**: is a dialog box that pops up and prompts the user for input. The program stops and waits until the user inputs data or cancels the box.

Format: StringVariable = InputBox (prompt, title)

1. Can the prompt and title be string literals or string variables?
2. How do you check that the user actually inputted something?
3. Write a statement that displays an input box with the title of “Name” and assigns the text typed to the Text property of a label named lblName.
4. How would you write the code to display “Your Name” in the title bar of an input box?

Special Variables with Loops

1. What is the most common name for a counter variable?
2. What is the counter variable used to determine?
3. How does the accumulator variable differ from a counter?
4. What is the accumulator variable useful for?

For Next Loop

A looping structure that executes a set of statements a fixed number of times.

Executes until counter is reached.

1. When do you create an integer counter to use?
2. Each time “Next” is executed, the counter is updated by \_\_\_\_.
3. What happens when the condition is tested false?
4. In a For…Next statement, what is the automatic increment?
5. What function is used to convert a numeric entry in an input box to a number?
6. Write code to update the accumulator intSum.
7. Given the following statements, how many message boxes will be displayed

Dim intX As Integer

For intX = 1 To 5

 MessageBox.Show(intX)

Next intX

1. Given the following statements, what is the value of intX after the last loop iteration?

Dim intX As Integer

For intX = 1 To 5

 MessageBox.Show(intX)

Next intX

1. Write statements using the appropriate looping structure to count down from 10 to 1 with each number being displayed in a message box.
2. Write statements using the appropriate looping structure to increment a variable named intNumber by 2 until intNumber is greater than or equal to 20.

Looping Structures

**Looping**: repeated actions

1. What is it called when programmers can code repeated actions into their programs?
2. Each time the loop runs it is called a/an \_\_\_\_\_\_\_\_\_\_\_\_\_.

Pretest and Posttests

**Pretest**: test the condition BEFORE the loop runs.

**Posttest**: run the loop one time then test the condition

Do While…Loop

1. This form executes only if condition is \_\_\_\_\_\_, therefore if condition is \_\_\_\_\_\_\_\_, the loop does not execute.

Do…Loop While

1. The looping structure that evaluates a condition \_\_\_\_\_\_\_ executing a loop \_\_\_\_\_\_\_.

Special Variables with Loops

1. Define sentinel. What is another name for sentinel?
2. A condition used to signify that a loop should stop executing: \_\_\_\_\_\_\_\_
3. A logic error known as the \_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when the programmer forgets to increment the counter variable.

So Which Loop to Use?

1. Use a \_\_\_\_\_\_\_\_\_\_\_\_ when you know how many times the loop will run
2. Use a \_\_\_\_\_\_\_\_\_\_\_\_ when a variable is used in the condition

More Loop Questions

1. Define loop.
2. Which loop executes at least once?
3. Define infinite loop.
4. Given the following statements, how many times with the body execute?

Dim intX As Integer = 0

Do

 intX = intX + 5

Loop While intX < 15

1. Write statements using the appropriate looping structure to increment a variable named intNumber by 2 until intNumber is greater than or equal to 20.