

CSI 31 LECTURE NOTES (Ojakian)

Topic 5: Intro to While-Loops

OUTLINE

(References: Sweigart Ch. 2 - part on while-loops)

1. while-Loops

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- (a) From book see Spam example on page 46ff
- (b) Useful Terminology
 - i. Counting variable
 - ii. Accumulator

2. Examples

PROBLEM 1. Write a program that uses a while-loop to print 25 stars.

(Using a variable to count)

PROBLEM 2. Write a program that takes a positive integer as input and prints this many stars.

(Using a variable to count)

PROBLEM 3. Write a program that repeatedly gets input from the user until the user enters 1. Then it prints the product of all the inputted numbers.

***PROBLEM* 4.** Write a program that repeatedly gets input from the user until the user enters 0. Then it prints the sum of all the inputted numbers.

PROBLEM 5. Write a program that first gets an input n from the user. Then it asks the user for a number n times in a row. Then it prints the product of all the inputted numbers.

***PROBLEM* 6.** Write a program that first gets an input n from the user. Then it asks the user for a number n times in a row. Then it prints the sum of all the inputted numbers.

PROBLEM 7. Write a program that takes a positive integer as input and computes its factorial.

***PROBLEM* 8.** Write a program that takes a positive integer as input and finds the sum from 1 to this number.

PROBLEM 9. Write a program that takes a positive integer as input and computes the sum of the odd numbers less than this number.

There is a faster way too ...