Names: Day 13– Nested loops

CS100 – Sep 16, 2022

Turn in your prediction from question 1 and the code from question 3.

1. Each of the following code snippets features one loop nested in another loop. The novelty is that there are two indexes: 1) ***a*** for the outer loop and 2) ***b*** for the inner loop. They increment independently. Predict what will be printed in each of the following code snippets. Assume 5 is the value provided by the user.

**printf(“Enter a number:\n“);**

**int num;**

**scanf(“%d”, &num);**

**for (int a=0; a<num; a++) {**

**for (int b=0; b<num; b++)**

**printf("<%d-%d> ", a, b);**

**printf("\n");**

**}**

**printf(“Enter a number:\n“);**

**int num;**

**scanf(“%d”, &num);**

**for (int a = 0; a < num; a++) {**

**for (int b = 0; b <= a; b++)**

**printf("X");**

**printf("\n");**

**}**

1. Program and execute both snippets to determine if your prediction was right.
2. Create a program that generates one of the patterns below. You should extrapolate what the pattern would be for different integer inputs from the user.