

Programming

While Loops Homework 2

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Problem #1: Print Diamond

- Read in a positive integer N , then print a diamond of $2N$ rows, as below:

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Problem #2: Special Multiples 1

- Read in a positive integer N, and print all integers from 0-N that satisfy the following properties:
 - Either the number is perfectly divisible by 8
 - Or it is divisible by **both 3 and 4**
- Input: 100
- Output: 0 8 12 16 24 32 36 40 48 56 60 64 72 80 84 88 96

Problem #3: Special Multiples 2

- Read in a positive integer N ($1 \leq N \leq 30$): print the **first N** integers that are:
 - Multiples of 3, but **not** multiples of 4
- Input: 11
- Output: 3 6 9 15 18 21 27 30 33 39 42
- Notice
 - 12 is divisible by both 3 and 4 \Rightarrow so it is excluded

Problem #4: Minimum of Values

- Read in a positive integer T; this denotes the number of test cases
- For each test case, read in a positive integer N, followed by reading N integers
- For each test case, print the **minimum** of all of the input N integers
- Example input:
 - 2 6 10 50 20 70 30 4 3 10 5 30
 - Notice here we have 2 test cases
 - 6 10 50 20 70 30 4 [6 numbers to read] ⇒ min is 4
 - 3 10 5 30
- Output
 - 4
 - 5

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”