C++ Programming

While Loops Homework 2

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Problem #1: Print diamond

- Read an integer N, then print diamond of 2N rows as below

```
5
    *
   ***
  *****
 *******
*********
*********
 *******
  *****
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    *
```

Problem #2: Special multiples 1

- Read an integer N : print all numbers that satisfy the following property
  - Either number is divisible by 8
  - Or divisible by both 4 and 3
- 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 an integer N (1 <= 30): Print the first N numbers that are
  - multiple of 3 but not multiple 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 ⇒ so excluded

Problem #4: Minimum of values

- **Input**: Read integer T for a number of test cases.
- For each test case read integer N followed by reading N integers.
- **Output**: For each test case, print the minimum of the N integers.
- 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."