A natural number greater than zero is a Hamming number if its divisors are only 2, 3 or 5. The twelve first Hamming numbers are 1, 2, 3, 4, 5, 8, 9, 10, 12, 15 and 16. However, neither 42 nor 97 are Hamming numbers: 42 is divisible by 7, and 97 is a prime number greater than 5.

Your task is to write a program that prints the \( n \) first Hamming numbers for different values of \( n \).

Your program must include and use the function

\[
\text{bool isHamming(int x);}\]

that indicates if a natural number \( x \) greater than zero is a Hamming number or is not.

**Input**

The input is a sequence of natural numbers.

**Output**

For each natural number \( n \) of the input print, in a line and separated by commas, the first \( n \) Hamming numbers in increasing order.

**Sample input**

\[
12 \\
2 \\
6 \\
0 \\
1
\]

**Sample output**

\[
1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16 \\
1, 2 \\
1, 2, 3, 4, 5, 6 \\
1
\]

**Observation**

There are astute ways to generate the \( n \) first Hamming numbers sorted. We do not ask you to discover them: simply, implement a reasonable algorithm.

**Problem information**

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