**Formula for the number of numbers printed for each problem as a function of “n”, the maximum number.**

Part A:

**Formula**: f(n) = n/2

Ex: Even numbers between 2 to 100 ( n = 100 )

f(100) = 100/2 = 50 is the number of numbers printed

Part B:

**Formula**: f(n) = n/3

Ex: Integers that are multiples of 3 from 0 to 99. ( n = 99 )

f(99) = 99/3 = 33 is the number of numbers printed

Part C:

**Formula**: f(n) = log2 n

Ex: prints integers between 2 and 1,048,576 that are integer powers of 2

f(1048576) = log2 1048576 = 20 is the number of numbers printed.

Part D: (same formula as part c)

**Formula**: f(n) = log2 n

Part E:

**Formula**: f(n) = (n+1) / 2

Ex: n must be odd and the integers shown will be odd as well. So how many numbers would it be from 0 to 123 showing odd numbers only.

f(123) = (123+1) / 2 = 62 is the number of numbers printed