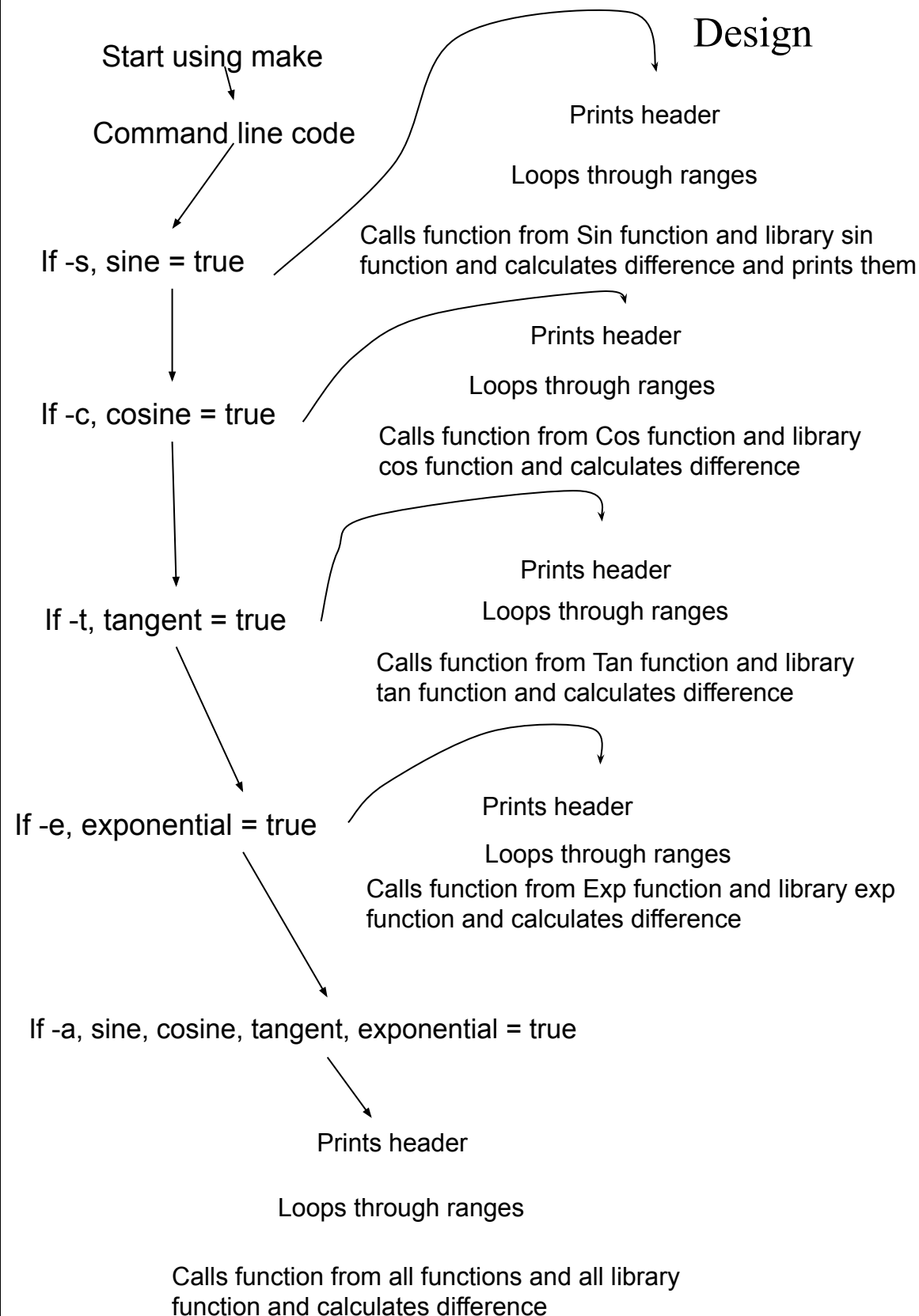


Design



Pseudocode

Sin function

Declaring $y = x^2$

Calculate the numerator of Horner's normal form

Calculate the denominator of Horner's normal form

Cos function

Declaring $y = x^2$

Calculate the numerator of Horner's normal form

Calculate the denominator of Horner's normal form

Tan function

Calculate the numerator of Padé approximant for $\tan(x)$

Calculate the denominator of Padé approximant for $\tan(x)$

Exp function

Declares values

While for the summation equation if add is smaller than while stops

Add what is added to the sum

Increase n by 1

$Y * x$ to increase power

Add $y / \text{factorial}$

Return summation

Main function

Sine, cosine, tangent, exponential set to false

Command line code

If argument given in command line set that test to true, if all requested set all the tests to true

If sine = true

Execute print statement and tests for sin with given ranges

If cosine = true

Execute print statement and tests for cos with given ranges

If tangent = true

Execute print statement and tests for tan with given ranges

If exponential = true

Execute print statement and tests for exp with given ranges