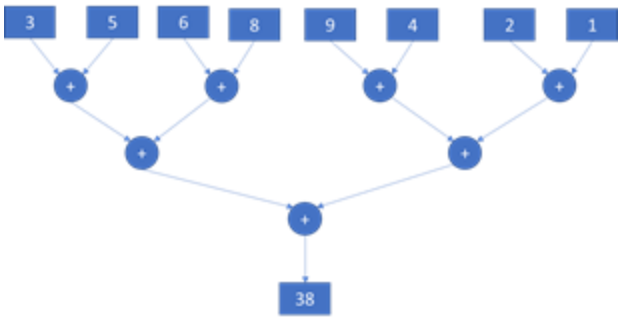
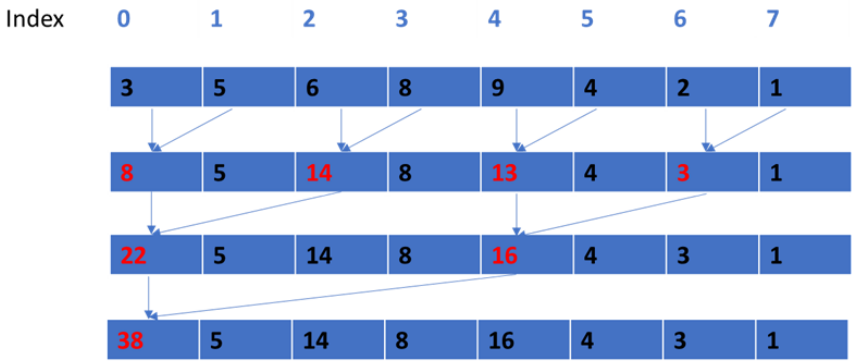
1. Exercise 1: Review the given source code for parallel reduction using sum operator for 2^20 elements

To run the program:
nvcc <filename>
a //(in windows)
or ./a //(in linux)

2. Exercise 2: Write a kernel that performs reduction as shown in figure using shared memory for 2^20 elements.



Here is how it can be designed



Elements in red represent the reduced values.
Note: Since each block will compute a single result, you will need to add all the block results at the end to get the final reduced result.

3. Exercise 3: Write a program for parallel reduction using max operation to find the max value among 2^20 elements
    a. First define host variables and a serial method to find max
    b. Define device variables and initialize them
    c. Create a kernel to find max similar to exercise 1 using global memory
    d. Create a kernel to find max similar to exercise 1 using shared memory