# Homework 2 Report

Yige Hu and Zhiting Zhu

## 1  P1

1: $step = ceil(log_2(n))$
2: $temp = n >> 1$
3: $offset = 1$
4: **parfor** $i = 1 : n - 1$ **do**
5:     $x(i) = b(i)$
6: **end parfor**
7: **parfor** $i = 0 : n/2 - 1$ **do**
8:     $indx2 = offset * (2 * i + 2) - 1$
9:     $indx1 = offset * (2 * i + 1) - 1$
10:     $x(indx2) = a(indx2) * a(indx2 - 1) * ... * a(indx1 + 1) * x(indx1) + x(indx2)$
11:     $offset* = 2$
12:     $temp = temp >> 1$
13: **end parfor**
14: $temp = 2$
15: $offset >>= 1$
16: **parfor** $i = 1 : n/2 - 1$ **do**
17:     $offset >>= 1$
18:     **if** $i < temp$ **then**
19:         $indx2 = offset * (2 * i + 1) - 1$
20:         $indx1 = offset * 2 * i - 1$
21:         $x(indx2) = a(indx2) * a(indx2 - 1) * ... * a(indx1 + 1) * x(indx1) + x(indx2)$
22:         $temp* = 2$
23:     **end if**
24: **end parfor**

## 2  P2

## 3  P3