## Let's put it all together:

1. We will ignore the prime number 2.

2. We assume, we already know the first two prime numbers

$p_1 = \bar{n}_1 = 2\cdot 1 + 1 = 3$ $\Rightarrow$ We know all primes $p \in \underbrace{[1,5]}_{=:I_1}$, $\bar{n}'_{0,1}$

$p_2 = \bar{n}_2 = 2\cdot 2 + 1 = 5$

$$\Rightarrow \left\| \begin{array}{lll} \text{I.} & \bar{n}_1 = 3\overbrace{(2k_1+1)}^{=:y_1} - 2\Delta_1 & , \Delta_1 \in \{1,2\} \\ \text{II.} & \bar{n}_2 = 5\underbrace{(2k_2+1)}_{=:y_2} - 2\Delta_2 & , \Delta_2 \in \{1,\dots,4\} \end{array} \right.$$

3. We have also:

$$\Rightarrow \left\| \begin{array}{lll} \text{I.} & \bar{n}_1' = 3\overbrace{(2k_1'+1)}^{=y_1'} - 2\overset{1}{\overset{\shortparallel}{\Delta x_{1,2}}}\Delta_1 & , \Delta_1 \in \{1,2\} \\ \text{II.} & \bar{n}_2' = 5\underbrace{(2k_2'+1)}_{=:y_2'} - 2\underset{1}{\underset{\shortparallel}{\Delta x_{1,2}}}\Delta_2 & , \Delta_2 \in \{1,\dots,4\} \end{array} \right.$$

4. Do the intersection: we receive $\bar{n}_{1,2}'$

5. Determine: $y_1^{min}, y_1^{max}, y_2^{min}, y_2^{max}$

6. Calculate with this $y_1^{min'}, y_1^{max'}, y_2^{min'}, y_2^{max'}$

7. Determine $z_{1,2}^{min}$ and $z_{1,2}^{max}$ from step 6. Make an good approximation for $z_{1,2}$.

   $\Rightarrow$ Now we have $\bar{n}_{1,2}'$ which generate all prime numers, in the allowed next range $I_2$.

8. Now, we can do $\bar{n}'_{1,2,3}(\bar{n}'_{1,2}, \bar{n}'_{0,1})$ to generate the primes in the

   and determine $z'_{1,2,3}(\bar{n}'_{1,2}, \underbrace{y_1^{min'}, y_1^{max'}, y_2^{min'}, y_2^{max'}}_{z'_{1,2}}) = z'_{1,2,3}(z'_{1,2})$

9. Now, we can do $\bar{n}'_{1,2,3,4}(\bar{n}'_{1,2,3}(\bar{n}'_{1,2}, \bar{n}'_{0,1}), \bar{n}'_{1,2}, \bar{n}'_{0,1})$

   and determine $z'_{1,2,3,4}(z'_{1,2,3}(z'_{1,2}))$

10. ... and so on.

!! $\Rightarrow$ All what we need are the equations for $z$, $\bar{n}_i'$, and $\bar{m}_i'$: (eq. 10 V2), (eq. I1) and (eq. I2)