⇒ Consequences for intersection of two equations of the form (**)

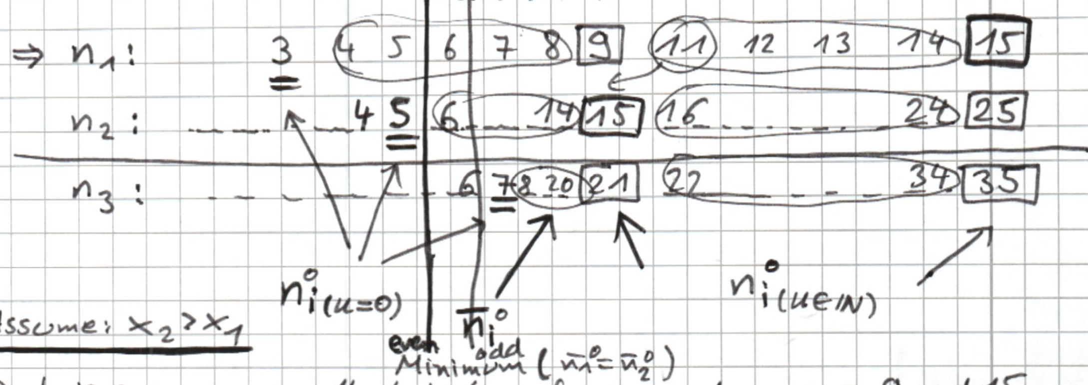
Example:

$$\bar{n}_1^o = 3(2u_1+1) - 2\Delta_1^o \,, \quad \Delta_1^o \in \{1,2\}$$

$$\bar{n}_2^o = 5(2u_2+1) - 2\Delta_2^o \,, \quad \Delta_2^o \in \{1,..,4\}$$

and

$$\bar{n}_3^o = 7(\underbrace{2u_3+1}_{=3,5,7,9,11}) - 2\Delta_3^o \,, \quad \Delta_3^o \in \{1,..,6\}$$



Assume: $x_2 > x_1$

⇒ We see, our smallest values for n_1 and n_2 are 9 and 15 for $u=1$.

⇒ So, for our range we have our Minimum at

$$\Rightarrow \boxed{\bar{n}^{o\,min}_{1,2} = \underbrace{(2x_2+1)}_{x_2>x_1} \cdot (2\underbrace{u_2}_{=1}+1) - 2\cdot \underbrace{\Delta_2^o}_{=2\cdot x_2}} \quad \text{(eq.21)}$$

$$\left(\underline{\text{here}}: \bar{n}^{min}_{1,2} = (2\cdot 2+1)\cdot(2\cdot 1+1) - 2\cdot 2\cdot 2 = 5\cdot 3 - 8 = 15-8 = \underline{\underline{7}}\right)$$

⇒ Let's look for our Maximum

If we look at our numbers, we see that we can ~~use~~ use ~~$(2x_2+1)\cdot(2u_2+1)$~~ here 21 safely as maximum range since it's the first number of the next larger number.

$$\Rightarrow \boxed{\bar{n}^{max}_{1,2} = \underbrace{(2(x_2+1)+1)}_{x_2>x_1}\cdot(2\underbrace{u_2}_{=1}+1) - 2} \quad \text{(eq.22)}$$

$$\left(\underline{\text{here}}: \bar{n}^{max}_{1,2} = (2\cdot(2+1)+1)\cdot(2\cdot 1+1) - 2 = (2\cdot 3+1)\cdot(2+1) - 2 = 7\cdot 3 - 2 = 19\right)$$

$(x_2 > x_1)$

$$\Rightarrow \underline{\text{valid } \bar{n}^o_{1,2} \text{ range}}: \bar{n}^o_{1,2} \in \left[(2x_2+1)\cdot 3 - 2\cdot(2\cdot x_2),\ (2(x_2+1)+1)\cdot 3 - 2\right] \quad \text{(eq.23)}$$