

On p. 182 of the book mentioned in my message, the author says that from the equations

$$CM = A - CN - DM = B - DN,$$

we may deduce

$$M = \frac{AD - BC}{DC - D^2 - C^2},$$

$$N = \frac{BC + BD - AC}{DC + D^2 - C^2},$$

but, if we find M in the equation $CM = B - DN$:

$$CM = B - DN \leftrightarrow M = \frac{B - DN}{C}$$

and substitute this expression in the equation $CM = A - CN - DM$, we obtain

$$\begin{aligned} CM = A - CN - DM &\leftrightarrow C \left(\frac{B - DN}{C} \right) = A - CN - D \left(\frac{B - DN}{C} \right) \leftrightarrow B - DN = A - CN + \\ &\left(\frac{-DB + D^2 N}{C} \right) \leftrightarrow B - DN = \frac{CA - C^2 N - DB + D^2 N}{C} \leftrightarrow CB - CDN = CA - C^2 N - DB + D^2 N \leftrightarrow \\ &-CDN + C^2 N - D^2 N = -CB + CA - DB \leftrightarrow (C^2 - D^2 - CD)N = CA - CB - DB \leftrightarrow \\ N &= \frac{CA - CB - DB}{C^2 - D^2 - CD}, \end{aligned}$$

where the signs of all terms are changed with respect to what the author says, that is:

$$N = \frac{BC + BD - AC}{DC + D^2 - C^2}$$

Likewise, if we substitute, in $M = \frac{B - DN}{C}$, what we have found for N , we obtain:

$$\begin{aligned} M = \frac{B - DN}{C} &\leftrightarrow M = \frac{B - D \left(\frac{CA - CB - DB}{C^2 - D^2 - CD} \right)}{C} = \frac{B + \frac{(-DCA + DCB + D^2 B)}{C^2 - D^2 - CD}}{C} = \frac{\frac{BC^2 - BD^2 - BCD - DCA + DCB + D^2 B}{C^2 - D^2 - CD}}{C} = \\ \frac{BC^2 - DCA}{C^2 - D^2 - CD} &= \frac{BC^2 - DCA}{C^3 - CD^2 - C^2 D} = \frac{BC - DA}{C^2 - D^2 - CD}, \end{aligned}$$

where, one more time, the signs of all terms are changed with respect to the author's result, which was:

$$M = \frac{AD - BC}{DC - D^2 - C^2}$$

What have I done wrong? Or is it just a misprint in the book?

Thank you very much in advance!