Protínání vpřed z délek

Ze zadaných hodnot vypočtěte souřadnice bodu č. 701 (b.č. 701 je pod spojnicí 5001-5002).

D: 5001 [9 000,00; 3 000,00]
5002 [9 243,14; 2 705,49]
M: $s_{5001,701}$ = 380,43 m
$s_{5002,701}$ = 377,69 m
U: 701 [? ; ?]

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1. $\sigma_{5001,5002}$ = 156,0642 g
   $s_{5001,5002}$ = 381,907 m
2. $\arccos \omega_{5001} = \frac{s^2_{5001,701} + s^2_{5001,5002} - s^2_{5002,701}}{2 \cdot s_{5001,701} \cdot s_{5001,5002}} =$
   = 65,9964 g
3. $\sigma_{5001,701} = \sigma_{5001,5002} + \omega_{5001}$ = 222,0606 g
4. $\Delta y_{5001,701} = s_{5001,701} * \sin \sigma_{5001,701}$ = –129,21 m
   $\Delta x_{5001,701} = s_{5001,701} * \cos \sigma_{5001,701}$ = –357,82 m
5. $Y_{701}^{I} = Y_{5001} + \Delta y_{5001,701}$ = 8 870,79 m
   $X_{701}^{I} = X_{5001} + \Delta x_{5001,701}$ = 2 642,18 m
6. $\sigma_{5002,5001} = \sigma_{5001,5002} \pm 200^{g}$ = 356,0642 g
7. $\arccos \omega_{5002} = \frac{s^2_{5002,701} + s^2_{5001,5002} - s^2_{5001,701}}{2 \cdot s_{5002,701} \cdot s_{5001,5002}} =$
   = 66,7855 g
8. $\sigma_{5002,701} = \sigma_{5002,5001} - \omega_{5002}$ = 289,2787 g
9. $\Delta y_{5002,701} = s_{5002,701} * \sin \sigma_{5002,701}$ = –372,35 m
   $\Delta x_{5002,701} = s_{5002,701} * \cos \sigma_{5002,701}$ = –63,31 m
10. $Y_{701}^{II} = Y_{5002} + \Delta y_{5002,701}$ = 8 870,79 m
    $X_{701}^{II} = X_{5002} + \Delta x_{5002,701}$ = 2 642,18 m
11. $Y_{701} = (Y_{701}^{I} + Y_{701}^{II})/2$ = **8 870,79 m**
    $X_{701} = (X_{701}^{I} + X_{701}^{II})/2$ = **2 642,18 m**