Reading: Odomirok.14-F (Schedule F - 2016.Fall Q13) a-Question
Model: 2017.Spring #14
Problem Type: Schedule F provision for reinsurance

Given An insurer has only 2 reinsurers with data as follows:

	recoverables NOT in dispute	unauthorized reinsurer B	authorized reinsurer A
T^n ==>	total reinsurance recoverable	132	115
P^n ==>	recoverable on paid loss & LAE	155	105
P^n_{90} ==>	recoverable on paid loss & LAE > 90 days past due	10	20
	recoverable on paid loss & LAE > 120 days past due	3	4

	recoverables in dispute	unauthorized reinsurer B	authorized reinsurer A
T^d ==>	total reinsurance recoverable	8	0
	recoverable on paid loss & LAE		
P^d_{90} ==>	recoverable on paid loss & LAE > 90 days past due	0	0
	recoverable on paid loss & LAE > 120 days past due	0	0

	other junk you need for the calculation	unauthorized reinsurer B	authorized reinsurer A
part of P^n ==>	amount received prior 90 days	20	15
part of C ==>	letters of credit (LOC)	40	65
part of C ==>	ceded balances payable		
part of C ==>	other amounts due reinsurers		

Notation

RP **Reinsurance Provision** <== this is what we want to calculate

T Total Recoverable *(includes amounts NOT IN dispute & amounts IN dispute)*

P Paid Recoverable

C Collateral *(or Offsets to RP)*

A superscript of ^{n} means the amount is NOT in disupte

A superscript of ^{d} means the amount IS in disupte

A subscript of $_{90}$ means the amount is PAST 90 DAYS due

C_s Collateral that is **secured**

C_u Collateral that is **unsecured**

(Schedule F - 2016.Fall Q13) b-Answer

RP	=	RP(A)	+	RP(B)
RP	=	103.6	+	4.0

RP = 107.6 *<== this is the final provision for reinsurance*

unauthorized reinsurer A

RP(A) = T - C
+ min(C , 20% x P^{n}_{90})
+ min(C , 20% x T^{d})

= 140 - 40
+ min(40 , 20% x 10)
+ min(40 , 20% x 8)

= 103.6 *<== REMEMBER: This is **capped** by T =* 140

authorized reinsurer B *(that's overdue)*

The provision for authorized but overdue reinsurers depends on whether or not they are **slow-paying**.

slow-paying ratio = P^{n}_{90} / P''
= 20 / 105
= 19.0%

slow-paying threshold is 20% so this reinsurer is NOT slow-paying ==> RP(B) = 4.0

if reinsurer IS NOT slow-paying:

RP(B) = 20% x (P^{n}_{90} + P^{d}_{90})
= 20% x (20 + 0)
= 4.0 *<== REMEMBER: This is **capped** by T =* 115

if reinsurer IS slow-paying:

RP(B) = 20%
x max(T - C , P^{n}_{90} + P^{d}_{90})

= 20%
x max(115 - 65 , 20 + 0)

= 10.0 *<== REMEMBER: This is **capped** by T =* 115