Reading: Odomirok.14-F (Schedule F - 2017.Spring Q14) 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 A	authorized reinsurer B
T^n ==>	total reinsurance recoverable	3,500	2,500
P^n ==>	recoverable on paid loss & LAE	2,000	1,300
P^n_{90} ==>	recoverable on paid loss & LAE > 90 days past due	250	150
	recoverable on paid loss & LAE > 120 days past due	55	75

	recoverables in dispute	unauthorized reinsurer A	authorized reinsurer B
T^d ==>	total reinsurance recoverable	600	500
	recoverable on paid loss & LAE	400	200
P^d_{90} ==>	recoverable on paid loss & LAE > 90 days past due	100	50
	recoverable on paid loss & LAE > 120 days past due	25	20

	other junk you need for the calculation	unauthorized reinsurer A	authorized reinsurer B
part of P^n ==>	amount received prior 90 days	40	0
part of C ==>	letters of credit (LOC)	1,500	300
part of C ==>	ceded balances payable	80	0
part of C ==>	other amounts due reinsurers	0	35

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 - 2017.Spring Q14) b-Answer

RP	=	RP(A)	+	RP(B)
RP	=	2,690	+	40

RP	=	2,730	*<== 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})
	=		4,100	-	1,580			
		+	min(	1,580	,	20%	x	250)
		+	min(	1,580	,	20%	x	600)
	=		2,690	*<== REMEMBER: This is* ***capped*** *by T =*		4,100		

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''
	=	150	/	1,300
	=	11.5%		

slow-paying threshold is 20% so this reinsurer is NOT slow-paying ==> RP(B) = 40

if reinsurer IS NOT slow-paying:

RP(B)	=	20%	x	(	P^{n}_{90}	+	P^{d}_{90}	)	
	=	20%	x	(	150	+	50	)	
	=	40	*<== REMEMBER: This is* ***capped*** *by T =*		3,000				

if reinsurer IS slow-paying:

RP(B)	=	20%							
	x	max(	T	-	C	,	P^{n}_{90}	+	P^{d}_{90})
	=	20%							
	x	max(	3,000	-	335	,	150	+	50)
	=	533	*<== REMEMBER: This is* ***capped*** *by T =*		3,000				