Reading: Odomirok.18-IEE (IEE Net Inv Gain Ratio - 2016.Fall Q10) a-Question
Model: 2016.Fall #10
Problem Type: Net Investment Gain (NIG): ratio

Given

Financial Statememt Item	notation	prior CY	current CY
NWP	NWP	50,700	50,000
NEP	NEP	49,500	48,600
net UEP reserve	UEP	20,600	22,000
net loss & LAE reserve	L + LAE	15,900	17,850
ceded reins. premium payable	re	200	1,200
agents' balances	AB	3,800	4,100
surplus	S	28,600	30,600
net investment gain	NIG	6,275	5,025
incurred comms. & brokerage	C&B	8,425	7,725
incurred taxes, license, fees	TLF	1,000	960
incurred other acq. expenses	other	3,325	3,700
incurred general expense	general	5,225	5,575

Find:

(a) Net Investment Gain Ratio (NIGR) for the current CY

(b) Surplus Ratio (SR) for the current CY

Let m(x) = mean value of (prior CY value of x , current CY value of x)

(a) NIGR = NIG / TIA "NIGR" is pronounced like the country *Niger*

NIG = 5,025 <== ***Net Investment Gain*** *(given)*

TIA = m(L) + m(LAE) + m(UEP) + m(re) + m(S) - m(AB) <== ***Total Investable Assets*** *see below*

where:

m(L+LAE)	=	(	15,900	+	17,850	)	/	2	=	16,875
m(UEP)	=	(	20,600	+	22,000	)	/	2	=	21,300
m(re)	=	(	200	+	1,200	)	/	2	=	700
m(S)	=	(	28,600	+	30,600	)	/	2	=	29,600
m(AB)	=	(	3,800	+	4,100	)	/	2	=	3,950

then:

TIA = 64,525

and:

NIGR = 5,025 / 64,525 = 7.80% <== final answer to (a)

(b) SR = m(S) / [m(L) + m(LAE) + m(UEP) + NEP_{CY}]

SR = 34.1% <== final answer to (b)