Non-Level-Benefit Insurances (continuous)

Policy	Actuarial present value	
	Notation	Formula
Continuously increasing whole life	$(\bar{I}\bar{A})_x$	$\int_0^\infty t\, v^t\, {}_tP_x\, \mu_{x+t}\, dt$
Annually increasing whole life	$(I\bar{A})_x$	$\int_0^\infty \lfloor t+1 \rfloor v^t\, {}_tP_x\, \mu_{x+t}\, dt$
Continuously increasing n-year term	$(\bar{I}\bar{A})^1_{x:\overline{n}\rceil}$	$\int_0^n t\, v^t\, {}_tP_x\, \mu_{x+t}\, dt$
Annually increasing n-years term	$(I\bar{A})^1_{x:\overline{n}\rceil}$	$\int_0^n \lfloor t+1 \rfloor v^t\, {}_tP_x\, \mu_{x+t}\, dt$
Continuously increasing n-years endowment	$(\bar{I}\bar{A})_{x:\overline{n}\rceil}$	$(\bar{I}\bar{A})^1_{x:\overline{n}\rceil} + n\, A^{\,1}_{x:\overline{n}\rceil}$
Annually increasing n-year endowment	$(I\bar{A})_{x:\overline{n}\rceil}$	$(I\bar{A})^1_{x:\overline{n}\rceil} + n\, A^{\,1}_{x:\overline{n}\rceil}$
Continuously ~~increasing~~ n-year term decresing	$(\bar{D}\bar{A})^1_{x:\overline{n}\rceil}$	$\int_0^n (n-t)\, v^t\, {}_tP_x\, \mu_{x+t}\, dt$?
Annually decreasing n-year term	$(D\bar{A})^1_{x:\overline{n}\rceil}$	$\int_0^n (n-\lfloor t \rfloor)\, v^t\, {}_tP_x\, \mu_{x+t}\, dt$?

decresing