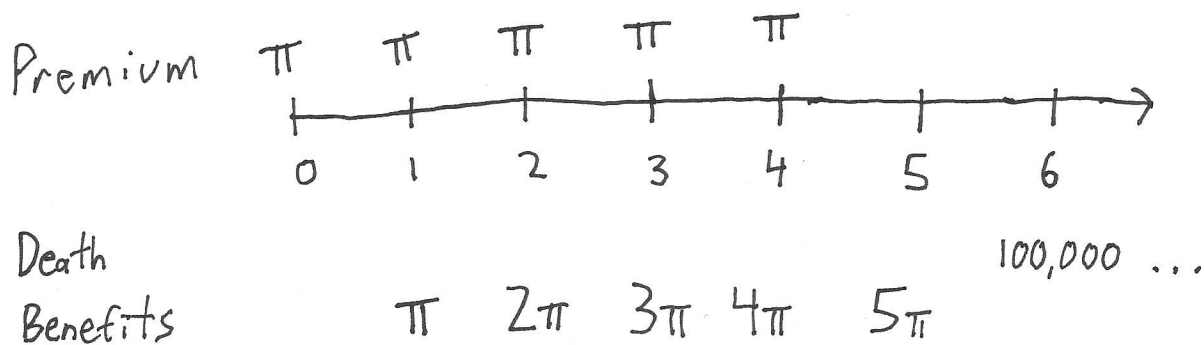


MLC # 172

Whole life policy of 100,000 on 40 yr old

$i = .06$ mortality ILT $(IA)_{40:\overline{5}|}^1 = .04042$

$$PV \text{ Benefits} = PV \text{ Premium}$$



$$100\,000 {}_{5|}A_{40} + \pi (IA)_{40:\overline{5}|}^1 = \pi \ddot{a}_{40:\overline{5}|}$$

$${}_{5|}A_{40} = {}_5E_{40} \cdot A_{45} = (.73529)(.2012) = .14794$$

$$\ddot{a}_{40:\overline{5}|} = \ddot{a}_{40} - {}_5E_{40} \cdot \ddot{a}_{45} = 14.8166 - (.73529)(14.1121) = 4.4401$$

$$100\,000(.14794) + .04042\pi = 4.4401\pi$$

$$\pi = 3362.52$$

