

**84.** For a special 2-payment whole life insurance on (80):

(i) Premiums of  $\pi$  are paid at the beginning of years 1 and 3.

(ii) The death benefit is paid at the end of the year of death.

(iii) There is a partial refund of premium feature:

If (80) dies in either year 1 or year 3, the death benefit is  $1000 + \frac{\pi}{2}$ .

Otherwise, the death benefit is 1000.

(iv) Mortality follows the Illustrative Life Table.

(v)  $i = 0.06$

Calculate  $\pi$ , using the equivalence principle.

(A) 369

(B) 381

(C) 397

(D) 409

(E) 425