

179. Kevin and Kira are modeling the future lifetime of (60).

(i) Kevin uses a double decrement model:

x	$l_x^{(\tau)}$	$d_x^{(1)}$	$d_x^{(2)}$
60	1000	120	80
61	800	160	80
62	560	–	–

(ii) Kira uses a multi-state model:

- (a) The states are 0 (alive), 1 (death due to cause 1), 2 (death due to cause 2).
(b) Her calculations include the annual transition probabilities.

(iii) The two models produce equal probabilities of decrement.

Calculate $p_{61}^{00} + p_{61}^{01} + p_{61}^{10} + p_{61}^{11}$.

- (A) 1.64
(B) 1.88
(C) 1.90
(D) 1.92
(E) 2.12