

159. For a fully discrete whole life insurance of 1000 on (x) :

- (i) Death is the only decrement.
- (ii) The annual benefit premium is 80.
- (iii) The annual gross premium is 100.
- (iv) Expenses in year 1, payable at the start of the year, are 40% of gross premiums.
- (v) Mortality and interest are the same for asset shares and benefit reserves.
- (vi) $i = 0.10$
- (vii) The benefit reserve at the end of year 1 is 40.
- (viii) The asset share at time 0 is 0.

Calculate the asset share at the end of the first year.

- (A) 17
- (B) 18
- (C) 19
- (D) 20
- (E) 21