The **Sum-of-the-Years-Digit Method (SYDM)** is an accelerated depreciation technique where the annual depreciation charge is calculated by multiplying the total depreciable capital (C_o - C_L) by a changing fractional factor. The denominator is the sum of the digits of the total years of useful life. The numerator is the remaining useful life digits counted in reverse order. To find C_3, we calculate and sum the individual depreciation charges for Year 1, Year 2, and Year 3, then subtract this total from the first cost.

First, find the sum-of-the-years' digits for an 8-year lifespan:

$$Sum\ of\ Digits\ = \frac{L\,(L+1)}{2} = \frac{8\,(8+1)}{2} = 36$$

Next, compute the individual annual depreciation steps (d_n) for the first 3 years based on the depreciable base (C_o - C_L = 50,000 - 5,000 = ₱45,000):

- **Year 1 (d_1, remaining life = 8):** $d_1 = \frac{8}{36}(45,000)$= ₱10,000
- **Year 2 (d_2, remaining life = 7):** $d_2 = \frac{7}{36}(45,000)$ = ₱8,750
- **Year 3 (d_3, remaining life = 6):** $d_3 = \frac{6}{36}(45,000)$ = ₱7,500

Sum the accumulated depreciation (D_3) for these three periods:

$D_3 = d_1 + d_2 + d_3$ = ₱10,000 + ₱8,750 + ₱7,500 = ₱26.250

Calculate the remaining book value at Year 3 (C_3):

$C_3 = C_o - D_3$ = ₱50,000 - ₱26,250

C_3 = ₱23,750.00