For depreciation based on present values with depreciation charges depending on each other, the following data are given:

$CI_0 := 789456.00$ Initial investment

$n := 5$ Useful life

$PI_0 := 101$ Price index at the time of purchase

$PI_1 := 103$ Price index at the time of the first depreciation

$PI_2 := 106$ Price index at the time of the second depreciation

$PI_3 := 110$ Price index at the time of the third depreciation

$PI_4 := 112$ Price index at the time of the fourth depreciation

$PI_5 := 115$ Price index at the time of the fifth depreciation

Which is the depreciation charge at the end of each year, if straight-line depreciation is applied? For doing this, no residual value at the end of useful life is taken into account.

$$Cumulated\_Depreciation1 := \frac{PI_1}{PI_0} \cdot CI_0 \cdot \frac{1}{n}$$

$Cumulated\_Depreciation1 = 161017.76$

$Depreciation1 := Cumulated\_Depreciation1$

$Depreciation1 = 161017.76$

$$Cumulated\_Depreciation2 := \frac{PI_2}{PI_0} \cdot CI_0 \cdot \frac{2}{n}$$

$Cumulated\_Depreciation2 = 331415.19$

$Depreciation2 := Cumulated\_Depreciation2 - Cumulated\_Depreciation1$

$Depreciation2 = 170397.43$

$$Cumulated\_Depreciation3 := \frac{PI_3}{PI_0} \cdot CI_0 \cdot \frac{3}{n}$$

$Cumulated\_Depreciation3 = 515882.14$

$Depreciation3 := Cumulated\_Depreciation3 - Cumulated\_Depreciation2$

$Depreciation3 = 184466.95$

$$Cumulated\_Depreciation4 := \frac{PI_4}{PI_0} \cdot CI_0 \cdot \frac{4}{n}$$

Cumulated_Depreciation4 = 700349.09

Depreciation4 := Cumulated_Depreciation4 − Cumulated_Depreciation3

Depreciation4 = 184466.95

$$\text{Cumulated\_Depreciation5} := \frac{PI_5}{PI_0} \cdot CI_0 \cdot \frac{5}{n}$$

Cumulated_Depreciation5 = 898885.54

Depreciation5 := Cumulated_Depreciation5 − Cumulated_Depreciation4

Depreciation5 = 198536.46