

For depreciation based on present values with depreciation charges independent of 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.

$$\text{Depreciation1} := \frac{PI_1}{PI_0} \cdot \frac{CI_0}{n}$$

$$\text{Depreciation1} = 161017.76$$

$$\text{Depreciation2} := \frac{PI_2}{PI_0} \cdot \frac{CI_0}{n}$$

$$\text{Depreciation2} = 165707.60$$

$$\text{Depreciation3} := \frac{PI_3}{PI_0} \cdot \frac{CI_0}{n}$$

$$\text{Depreciation3} = 171960.71$$

$$\text{Depreciation4} := \frac{PI_4}{PI_0} \cdot \frac{CI_0}{n}$$

$$\text{Depreciation4} = 175087.27$$

$$\text{Depreciation5} := \frac{PI_5}{PI_0} \cdot \frac{CI_0}{n}$$

$$\text{Depreciation5} = 179777.11$$